The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XVIII GRAND RAPIDS, MICHIGAN, APRIL, 1919 No. 4

Original Articles

ENCEPHALITIS LETHARGICA.

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This quite obscure and mysterious disease has been variously termed: "a new disease," "a new syndrome," acute epidemic encephalitis, epidemic stupor, nona, Heine-Medin disease, epidemic encephalo-myelitis and sporadic polio-encephalitis.

Encephalitis lethargica is an infectious inflammatory disease of unknown etiology, characterized by specific manifestations arising in the central nervous system, of which the most frequent and pronounced characteristics are: general asthenia, progressive lethargy and cranial nerve palsies.

History.—Von Economo at the April, 1917, meeting of the Viennese Society of Psychiatry introduced the present common accepted term, lethargic encephalitis.

Professor A. Netter at the Paris academie de Medecine on May 7, 1918, expressed the view that the disease is a distinct entity and not a form a polio-encephalitis and believed the disease occurred at the end of the 17th century and the beginning of the 18th in Germany. It occurred in upper Italy and Hungary in 1890 when the pandemic of influenza of that era was declining. Very suggestive cases occurred in nearly all countries of Europe and in the United States in the spring of 1895. No doubt exists, that the disease occurred in Vienna in the winter of 1916-17. Harris of London and Hall of Sheffield called the attention of the British Medical profession to the disease in March, 1918. Cases have recently been recognized in the United States.

CASE I. Male, age 18, seen service in Naval Reserve at Hampton Roads Naval Base. January 21st, a week before his return home, after discharge from navy, he noticed a "twisting" of eyes and saw double, had to read with one eye closed, felt tired and dull. En route home seemed dazed at the Station in Cincinnati and was sent to hospital by the Red Cross. Remained in the hospital one day and was discharged seemingly improved. Walked to street car, which he boarded to depot; took train for Grand Rapids, his home, and arrived the morning of January 28. Staggered into home and shocked mother, seemed quite dazed, disinterested and giddy. Toward evening became delirious and trembling of whole body developed. Dr. N. (the second case of this report) was called and found patient had a temperature of 100 and talkative. January 31st I saw the patient in consultation with Dr. N. and patient gave evidence of quite profound stupor but could be aroused and would answer a few questions in a droll manner, great effort present to raise eyelids and an internal strabismus evident with marked congestion of retinal vessels but no evident hemorrhages. Distinct rigidity of neck present, as also suggestive Kernig. Tache cerebral marked. February 1st I performed a spinal puncture. The clear fluid exuded under markedly increased pressure and on examination showed a normal count and the cell present of lymphocyte type. Culture negative. No albumen reaction and no film development in specimens left in refrigerator for three days. Wassermann reaction was negative. Centrifuged sediment showed no tubercle bacilli. Blood and urine were examined and found normal. February 2nd, the right pupil was smaller than the left and a distinct bilateral ptosis. February 3rd, Asthenia marked, unable to raise extremities and profuse sweating began and has continued to date. Incontinence of urine commenced and lasted for ten days. Following spinal puncture he was brighter for three days and then passed into a stupor for seven days and then gradually became brighter. Opened eyes in a half way manner and paid attention to happenings about the room and talked to his wife whom he previously had not recognized. March 7th, was permitted out of bed and at present, March 16th, his eyes have

*Read before Muskegon County Medical Society, March 21, 1919.

improved but the left ptosis remains and after prolonged focus of eyes on an object the left eye converges. He sits listless and moves his jaws frequently as if chewing. He walks about a little, slowly and somewhat uncertain. He does not venture to speak unless spoken to and rarely smiles. Appetite is voracious and thirst intense. Noise irritates patient intensely. Hearing seems to be very acute. From February 1st to the 14th carried a temperature ranging from 99.4 to 103.4, pulse 112 to 136 and rather feeble at times and respiration 22 to 28. Sleeps well but quite prolonged.

CASE II. Dr. N. Physician, male, aged 41, first saw case I on January 28 and was in attendance four days—26 days later, Saturday, February 22 seemed quite weary and surprised that his vision was somewhat blurred and he saw double. This diplopia lasted two days but the blurred vision has continued to a degree to date March 16th but is improving—weariness progressed but the doctor continued his practice for three days when he complained of cardiac palpitation and consulted Dr. Northrop, complained of extreme tiredness and seemed dull and irritable. The following day, February 26, felt weaker and drowsy and took to bed, would speak with an effort to the immediate members of his family, was quite indifferent and oblivious to surroundings. March 1st asthenia more marked and trembling of body evident with pains in forearm and next day in hip and legs which continued intermittently for a week. Sunday morning, March 1st, I saw the patient in consultation with Dr. Northrop and diagnosed the case encephalitis lethargica and suggested spinal puncture. Later in the afternoon further consul with Dr. Camp occurred, who performed spinal puncture and took blood culture. Two days later, March 4th, he began to seem brighter, talked spontaneously the next day and became very restless. This restlessness was quite extreme for a period of nine days and then began declining. With the decline of restlessness the doctor has assumed a rather euphorious state, being quite elated over his improvement. Some difficulty in raising the neck was experienced after the first week and gave evidence at my examination by a suggestion of distinct resistence on March 2nd. Profuse perspiration became evident four days after onset and a miliarial eruption appeared on March 3rd. Four days after onset an evening rise in temperature 100.6 occurred but was normal next morning. After this it ranged from 99 in the morning to 101.6 in the evening for twelve days and then became normal. March 2nd to the 8th the pulse was 120 to 128, respiration 22 to 28 after March 8th, pulse 84 to 100 and respiration 20 to 24. March 2nd to the 10th, had retention of urine, necessitating catheterization. At all times took nourishment when aroused and offered to him and now has a voracious appetite. Constipation was present throughout the course. Eye examination by Dr. Camp revealed a mild neuro-retinitis. Later Dr. Camp reported spinal fluid negative as well as blood culture, and Wassermann reaction. Urine and blood examined by Dr. Northrop negative.

CASE III. Male, age 68, February 17, complained of vague pains in back and felt tired. Five days later began to get drowsy and seemingly weak. Seen by another physician but no diagnosis made. February 25th very stuporous and hesitancy in speech noted, at times wide awake and would wander about room. February 26th marked weakness of extremities and pains in legs when I was called. Suggestion of left facial palsy and difficulty in speech. February 28th speech more distinct, weakness and drowsiness marked, facial palsy distinct and rigidity of neck present. March 1st, stuporous, slight temperature; arousable but unable to speak distinctly though an effort was made, but performed certain acts desired. March 5th neck distinctly rigid with slight retraction and dysphagia present. Dysphagia continued for six days and has improved. The period of the first four days during which the dysphagia was pronounced, the patient had intervals of Cheyne-Stokes respiration. Mentality brighter and extremely restless and moaning at times developed and continues. The patient had incontinence of urine for a few days as also incontinence of stool. March 14th able to articulate and answer questions with monosyllabic words. Sits up unassisted but restlessness continues. Urine faint trace of albumen, with mucin and few leucocytes and epithelial cells present. Blood pressure 140. Eye examination by Dr. D. Emmett Welsh revealed swelling of nerve head, blurring of disc, marked venous engorgement and contraction of arterioles.

Etiology.—Von Wiesener, who studied Economo's fatal case, a girl of 14, cultured a diplostreptococcus but was unable to demonstrate the organism anywhere in nerve tissue in microscopical preparations. Wilson reports negative bacteriological findings in tissues of his two fatal cases and refuses to accept von Wiesener's diplo-streptococcus as an etiological factor. McIntosh on behalf of the Medical Research

Committee of London Hospital and Hancock and Pearse of the food branch of the Board's Medical Department of London, investigated from the view of possible food origin and concluded that neither on the bacteriological, nor on the epidemeological side could any direct or indirect evidence be obtained of an association of the illness with bacillus botulinus or with food infection. The results of the preliminary inquiry pointed to a possibility that it might be one of the many forms of the disease or group of diseases at present labeled "Heine-Medin"-disease, of which acute poliomyelitis was the commonest type. Picken believes the cases first regarded as botulism, to be polioencephalitis, an aberrant form of acute anterior poliomyelitis and reported two cases. Breinl of Australia states that pathological and experimental research convinces him that the Australian "Mysterious Disease" represented the identical virus as that of acute poliomyelitis and clinically presented a polioencephalitis. Marinesco and McIntosh concluded independently that encephalitis lethargica in the 1918 outbreak was the same disease as described by von Economo of Austria and Netter of France and was a disease clinically distinct from analogous affections. Hamer of the Royal Society of Medicine believes the epidemic merely part and parcel of a prevalence of influenza. During the last ten years evidence has been collected clearly showing close association between outbreaks of poliomyelitis, polio-encephalitis, cerebro-spinal meningitis and prevalence of influenza. Noel calls attention to the marked similarity of a large number of case to typhus fever. Lethargic encephalitis occurs in all ages and about equally in sex, and most prevalent in winter and spring.

Pathology.—Marinesco, professor of Neurology at Bucharest has found disseminated miliary or punctiform hemorrhages visible to naked eye in the grey matter in neighborhood of floor of 4th ventricle, the aqueduct of Sylvius and even the 3rd ventricle and also posterior part of pons and peduncles. Cerebral cortex showed congestion of lepto-meninges. The first segment of spinal cord same histological lesions as pons, bulb and peduncles. Microscopical study of the above mentioned regions had demonstrated existence of four kinds of lesions: (1) Infiltration of walls of small vessels, especially the veins, consisting of lymphocytes and plasma cells in the adventitia, disposed in several layers. The endothelium and filroblasts might also take part in the inflammatory process. (2) Foci of interstitial inflammation consisting of neuroglia cells of several kinds, including large cells with voluminous eccentric nucleus and many fibrillary prolongations, lymphocytes and polynuclears. The foci appear sometimes to be altogether independent of vascular infiltrations and might occur in the nerve roots, as the hypoglossal, pneumogastric, etc. (3) Lesions of the nerve cells which did not correspond with those usually seen in infantile paralysis. There was dissolution of the soi-disant, Nissl bodies, relative achromatosis, reduction in volume of cellular body and number of neuronphagia as described by Economo. (4) Foci of hemorrhage much more numerous when microscopic examination was made. Hemorrhages remained circumscribed around walls of small-vessels and red cells mingled with inflammatory infiltration cells. The vessel walls did not appear necrosed but sometimes a solution of continuity of vessel wall could be seen.

Buzzard's microscopic study of pathological lesions showed the remarkable way in which the vessels of the brain reacted in this inflammatory process. Chief features are: (1) Perivascular infiltrations, mainly with small round cells. (2) Small capillary hemorrhages which suggest a gradual oozing of blood, through damaged walls of small veins or capillaries. (3) Thrombosis of small and middle sized vessels in different stage of organization. (4) Ischemic softenings presenting appearance of hemorrhagic infarction. (5) Subarachnoid hemorrhages and cellular infiltration of lepto-meninges. (6) General neuroglial proliferation. (7) Chromatolysis and coagulation-necrosis in nerve cells.

Box's case, an apoplectiform type of epidemic encephalitis, suggested hemorrhage and at post-mortem, some of the lesions suggest hemorrhagic infarction rather than true extravasation and states it is conceivable that perivascular exudation might itself lead to vascular strangulation or thrombosis.

Symptoms.—The incubation period of this disease is variable and indefinite. The onset in five of sixteen of Hall's cases was sudden, the rest gradual. A prodromal period, MacNalty states, commonly ranges from one to seven days but might be as protracted as three weeks during which occurred lethargy, headache, vertigo, giddiness and diplopia, as well as lassitude, fatigue, vomiting and diarrhea. The onset is usually ingravescent especially in the type with cranial nerve palsies which usually take some time to develop fully and may vary in extent from day to day. Fever occurs in the majority of cases often of low-grade type, other times

severe and prolonged and intermittent and remittent in type. General asthenia gradually becomes pronounced with muscular pains and occasional twitchings. Cranial nerve palsies may be distinct. Ophthalmoplegia, external or internal may be distinct with ptosis symmetrical or asymmetrical, complete or incomplete. Paralysis of accommodation and corresponding indistinctness of vision or diplopia, Wilson found a frequent and early symptom. Involvement of lower cranial nerves to a variable extent is not uncommon; facies often expressionless; obliteration of facial lines; palate, tongue, larynx and pharynx may have transient implication. Pupils may be contracted, dilated and fixed or normal.

Of the general symptoms, indifference, inaptitude, oblivious to surroundings, drowsiness, lethargy and stupor is in one degree or other a feature from the onset, occasionally the lethargy appears later in the disease. After a variable period, the stupor may be replaced by extreme restlessness alternating with apathy. One is impressed by the fact that the patient in the lethargic state responds quite correctly when spoken to in word and act and takes nourishment as often as presented to him unless dysphagia is distinct. Speech may be affected and may be droll, slurred or rapid or may suggest an aphasia. Retention of urine may occur but usually incontinence is present at sometime as also of feces. Hyperidrosis is pronounced and may be associated with a miliaria eruption. Tache cerebrale was pronounced in my first case. Distinct rigidity of neck muscles or only a resistance may be present associated with pain. A suggestive Kernig may be evident but Babinski, Brodzinski, Oppenheim, Gordon and Chaddock were negative in my cases. Delirious attacks and Cheyne-Stokes breathing may occur, especially if the medulla becomes involved making prognosis most grave (Case 3). Constipation is present in most cases.

Vaidya found the average leucocyte count, 7600 per c.mm. and relative cellular proportions normal. An occasional higher count was accounted for by a complication. Spinal fluid was clear in all cases, without coagulation on standing but in two of my cases, showed increased tension. Spinal fluid protein was never more than slightly increased. Cell count normal or slightly increased and type of cell always lymphoid. Pothier found a definite pleocytosis of the lymphocytic type in cases at Camp Lee, Virginia.

Various types of the disease are classified by MacNalty. (1) A type displaying general disturbances of the functions of the central nervous system but without localizing signs. (2) Types with nervous localizing signs: (a) affection of 3rd pair of cranial nerves, (b) affections of brain stem and bulb with localizing lesions of other cranial nerves, (c) affections of the long tracts, pyramidal, prepyramidal and upcoming afferent tracts, (d) ataxic types, (e) affections of cerebral cortex, (f) types indicating some evidence of spinal cord involvement, (g) polyneuritic type. (3) Mild or abortive types with or without localizing signs in central nervous system.

Course.—Of disease varies greatly in typical cases, it may end fatally in a few days or be prolonged for weeks or months.

The stupor may last but two or three days or often two to five weeks. I have been informed by a member of Hospital Corps, Camp Custer of a suspected fatal case of encephalitis lethargica being in a stupor for forty-seven days. Altered mentality and cranial nerve palsy may persist. Findlay reports one case with a right sided facial paralysis, ptosis of right upper eyelid, left external squint and a general mental apathy.

Prognosis.—Buzzard states some cases recover completely, others survive the acute stage but carry with them in after life permanent defects due to the morbid process. A certain number die of toxemia or hemorrhage in the acute illness or from some complication. James records a mortality of from 15.8 to 20 per cent., 8 per cent. under ten and 8 per cent. from ten to nineteen. Economo's ratio of mortality was six of eleven cases. Netter, seven out of fifteen; Wilson two out of thirteen; MacNalty collected 168 with 37 deaths; Findlay one of three.

Diagnosis.—The most common error in diagnosis is to attribute the condition to tuberculous meningitis. The cardinal symptoms of lethargic encephalitis are asthenia, lethargy and cranial nerve palsies. Acute poliomyelitis is chiefly a summer or autumnal disease while epidemic stupor has been in evidence in winter and spring.

Prophylaxis.—In conference with Dr. C. C. Slemons, Health Officer of Grand Rapids, it was thought best to institute the same preventative measures as in acute poliomyelitis.

Treatment.—With the etiological factor obscure no specific treatment is recommendable. Eliminative, hydrotherapeutic and hygienic measures are indicated as in any acute infectious fever. Frequent change of position is necessary to prevent hypostasis and decubitus. Spinal puncture relieves the intra-cranial ten-

sion and two of the cases seemed much brighter the following two days. Potassium iodide was administered in moderate doses and urotropin in large doses. The urine was examined frequently to observe any urotropin irritation should it occur. Narcotics were given for restlessness.

Conclusions.—A careful study of cases I and II, one is impressed with the fact that case II probably contracted the disease from case I, the onset similar and course similar but a lower-grade temperature in case II, and that the incubation period was from three to three and one-half weeks. (2) Whether or not this disease is a type of poliomyelitis seems quite a puzzle. In poliomyelitis the appearance of the disease is more rapid and pronounced as contrast to epidemic encephalitis. All three cases have had a gradual onset. I have been unable to trace any evidence of presence of any cases of acute anterior poliomyelitis in this section of Michigan. (3) None of the three cases had suffered a preceding attack of influenza. (4) MacNalty thinks the relationship between poliomyelitis and encephalitis might be comparable to that existing between typhoid fever and paratyphoid.

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"WHAT EVERYBODY SHOULD KNOW ABOUT CANCER."

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The State Board of Health of Michigan deserves the credit of being the first to issue a circular for public distribution on the cancer question in 1909, and another one in 1915. These were distributed to physicians, and by them through the public in order to call the peoples attention to the great menace of cancer, and the need of having it recognized early and promptly treated. First of all it should be understood.

THAT CANCER IS NOT HEREDITARY.

Although it may occur in the same family, this only shows that there may be a lack of resistance to cancer in that family, but it is not transmitted from parent to child.

IT IS NOT CONTAGIOUS.

People living in the same house, doctors and nurses who handle these cases a great deal, never get it that way. I know of no case where a husband or wife both had the disease.

But, I want to qualify this remark myself. The experiments of Gaylord of Buffalo with cancer in fishes seems to indicate that it is contagious. In the Bronx Zoological Garden it has been shown that snakes are peculiarly liable to cancer, and if one snake gets it, all the snakes in that cage die of cancer in a short time, unless the first case is early recognized, and promptly removed.

CANCER AGE.

Cancer occurs especially after the fortieth year. Although cases are frequently reported even younger, as early as twenty, and children especially are subjected to a form of cancer called, sarcoma. Nevertheless, it has been universally recognized that from thirty-five to forty, and over, is the so-called cancer age, and that at this time people must be especially on the lookout for such trouble.

WHAT WOMEN SHOULD KNOW.

A malignant disease affects women especially in the generative organs, of which the breast is one. Any lump, swelling, hardening in the breast during the cancer age is potentially cancer. It may be only a cystic or fibroid growth at the time, but ultimately a cancerous condition will be planted on it. Hence, every swelling, hardening, or tumor, which does not disappear in a few weeks must be promptly removed, not only removed, but no woman can afford to take the chance, but must have the whole breast removed, including the glands in the axilla, because not enough tissue is removed by simply taking out the tumor, and if an effort is made to remove half of the breast, or something like it, the whole breast might just as well be removed. No use talking to me about esthetic appearance, and preventing the wearing of low-necked dresses, when the woman has

such a trouble it is too serious, and all vanity must disappear. It is simply a question of life and death.

CHANGE OF LIFE AND FLOWING.

The vicious notion still persists that when a woman approaches the change of life, she must and does flow a great deal, kind of anticipating the after stoppage. This is entirely wrong. When a woman approaches the change of life she flows no more, if healthy, than at any other time. In fact, it generally becomes scantier, runs over times, skips a month here and there, and finally ceases. If a woman at this time flows longer than usual, and it recurs earlier than her normal period, or a discharge makes its appearance, or if she has a discharge, and that changes in character, becomes irritating or odorous, the probabilities are she is developing a cancer.

She must promptly consult a physician, not one who gives her some medicine, as that does no good, but one who thoroughly examines her case. If the physician does not examine her, simply gives her some medicine, *he is absolutely no good.* She must go to a scientific up-to-date man, who will thoroughly investigate her case and act promptly, as this is the most important thing of all.

WHAT MEN SHOULD KNOW.

Men are more liable to cancer on the face, the nose, ear, lips, eyelids, and any sore, pimple, and wart that develops and does not disappear in ten to fifteen days is liable to be the beginning of a cancer, and a physician should be promptly consulted. Men are most liable to cancer of the abdominal organs, stomach, liver, and intestines, as well as the bladder and prostate. A man who has always had good digestion, and then has trouble with it, who develops flatulency and constipation, with pain in the abdomen, who is inclined to be easily nauseated, and above all, who *looses weight rapidly* is very liable to have cancer develop somewhere in the abdomen. He should promptly seek medical aid and diagnosis. If the physician just treats him with simple remedies, cathartics, etc., that physician is no good. He should be dismissed; he is not up-to-date. A physician should analyze his gastric juice after giving him a test meal. He should have his stomach and abdominal organs carefully X-rayed, and a diagnosis made. The latter is sometimes difficult, and where prompt improvement does not take place, an *exploratory abdominal section* should be made. This in the hands of an experienced surgeon is not dangerous whatsoever, and the malignant growth may be on the posterior part of the abdomen, where it is difficult to make the diagnosis, with the present means in our hands, but where the surgeon with a small opening can clear the case, and easily remove the trouble, if it is not too far advanced. Everything depends on the early diagnosis. When a man in the cancer age has an irritable bladder, trouble in urinating, he should promptly seek medical aid. Men are also especially liable to cancer of the rectum, and when there is troublesome or painful defecation, he should not listen to his friends who say, "Oh, you have got the piles," but should seek the aid of a careful physician, who will make a thorough investigation, and he must insist on that, and not be given some pile salve or suppositories.

IRRITATION DOES NOT CAUSE CANCER.

It is stated in nearly every article you read about irritation causing cancer. I thought I had repeatedly shown up that this is not the cause. If irritation would cause it, everybody would have it. If there is any irritation, it is on the nose by wearing glasses. Has anybody ever seen a cancer start at that place? I never found a physician who would admit it. There are five, or perhaps ten million people in this country wearing trusses, it is claimed. If there is any irritation anywhere, it is where the pad of the truss presses. The skin there is thickened, there is a deposit of pigment, and a constant irritation. Has anybody ever seen a case of cancer develop at that spot? But more than that, with the silly shoes worn by women, as a rule all women have corns. There is irritation with every step day in and day out, year after year. Has anybody ever seen a cancer develop where a corn was, where the irritation has existed for years and years? No, it takes more than irritation to produce cancer.

THE CAUSE OF CANCER IS NOT KNOWN.

It has been suggested that some prenatal cells have been misplaced in the body, and in the course of time being irritated, there develops what we call cancer. Some think it is a micro-organism. I certainly do not know, but I belong to those who believe that the whole history and course of cancer would indicate some kind of infection, that has a very slow lengthy period of incubation. We all do see, how bacteria circulating in the blood, sometimes escape from the the blood vessels in the surrounding tissue and there multiply, and develop an abscess, be that streptococcus or

staphylococcus, or any other kind of microbe. So I can see how a cancer germ circulating in the blood can strike some part of the body were the blood vessels are aberrant, irritated or weakened, like they would be in an irritated or lacerated part of the body, or where there was a naevus, or a wart, or scar. How a germ circulating in such weakened part of the arterial or venous system could more easily pass through the blood vessels at this locality, and then multiply and develop into what we call a cancer. Hence, I for one would say, that irritation does not cause cancer, it may be predisposition, but that the cause of is

LACK OF RESISTANCE, IRRITATION, PLUS—?

However, I want to especially appeal to the medical profession.

WHAT DOCTORS OUGHT TO KNOW ABOUT CANCER.

Doctors should know, and I think all good doctors do know, all that is known about it, but that is not enough, for he should have what I have called attention to heretofore, and what I call "Cancer on the Brain." They often forget that one woman out of eight dies of cancer, and one man out of thirteen dies of cancer. They are busy, sometimes very busy, and they are careless. They do not examine the patient as thoroughly as they should. It makes me tired, as the high school girl would say, to have patients come to me with cancer who have had it for a year or two, and have been doctoring all the time. It certainly is a crime and a sin to neglect patients like that. Every person in the cancer age should be suspected of having the trouble, and no physician has a right to jog these patients along without a most thorough and systematic investigation of the case. The doctor may be very busy, and have to hurry to some emergency case when a patient calls upon him with the troubles that are suspicious. He may give that patient some simply remedy, and make an appointment for a thorough investigation in a day or two, and then he should *take his time,* and *thoroughly investigate the case,* and if he cannot *positively make up* his mind what the trouble is, he *should call in council,* and get all the help he can to make a correct diagnosis. For every doctor should know, that in the present state of our knowledge that only the early diagnosis, and the prompt and thorough removal of the diseased parts, will give the patient any chance.

BIOPSY.

The former vicious practice of removing some of the diseased tissues and examining it microscopically to see if it is cancer, and then leisurely remove it at some later day *is a most vicious practice,* and should be *condemned on every occasion.* The only correct treatment is that I have above indicated in talking of cancer of the breast.

Another thing that makes me perfectly disgusted is to see physicians curetting a uterus, and every general practitioner does that now days, or sewing up a lacerated cervix, throwing away the curettings, or the tissues removed from the cervix. This to me is most vicious. Every tissue removed from a lacerated cervix, or when curetting, should be carefully *examined microscopically,* and many cases of cancer in the very earliest stages can be detected, and the parts then promptly removed, and the patient's life saved. This you might say, is also a kind of biopsy, but the danger of implantation from curetting the parts does not seem to me great, and I have records on hand of patients operated upon many years ago, who are still perfectly well. In fact, I go further, a woman who has a badly lacerated or diseased uterus in the cancer age, who has passed the child bearing period, instead of trying to patch up that diseased and absolutely useless organ, I urge a complete removal of the uterus, and take no chance of the development of cancer, and in some of these cases, I have found cancer cells. In cases of cancer of the fundus, where the cervix seems perfectly healthy, it is difficult to make the diagnosis. Where a woman flows and flows with an apparently healthy uterus, I do not hesitate to remove the organ if she is in the cancer age.

For years I have advocated the question of educating the public on the cancer question. In fact, I have suggested that we have a *cancer day* designated every year, when the ministers should preach in the churches, and the doctors in the different societies and clubs, and the newspapers publish articles on the great menace of cancer. It is apparently getting worse than the question of tuberculosis. I do. not know whether it increases, according to statistics it does, but it is more frequently diagnosed than formerly, and it may not be more common than it was years ago, still I firmly believe it is increasing.

In summing up, I would say.

First. Educate the people by lectures and by talks on every occasion about the danger of cancer.

Secondly. Teach the people what the suspicious symptoms are.

Thirdly. That it is the most solemn duty of every physician to make the most sytematic investigation in every case, showing suspicious symptoms.

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REPORT OF THE WORK DONE FOR THE MICHIGAN STATE BOARD OF HEALTH ON THE MENTAL CONDITIONS OF CASES UNDER TREATMENT FOR VENEREAL DISEASE.*

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Prostitution, with its resulting diseases, has occupied the attention of society for centuries. All of you are more or less familiar with the different methods employed to attempt to solve this very difficult problem. In the past we have blamed economical conditions, such as poor wages, starvation, over-crowding, and other factors closely related to the life of the individual, but have failed to recognize that often the fundamental cause is in the individual mental makeup and that in a large percentage of the prostitutes we find women of normal physical development and normal instincts combined with intellects incapable of properly comprehending and forming correct judgments and acting accordingly. In fact, a large percentage have intelligences far below the average normal standard and as a result are suggestible and easily led astray.

We have no means of knowing the exact number of confirmed prostitutes in the United States. In 1911 the Vice Commission of Chicago reported 5,000 identified prostitutes in that city and the large cities of the seaboard had a proportionately larger number and of course these figures would be greatly augmented by the addition of those unknown to the authorities. No doubt the number is very large and will be found to have increased astonishingly during the past two years. The mobilization of the great armies has naturally been attended with marked psychological changes in the youths of the nation—the emotions have been heightened and this has had its effect upon girls of weakened mentality, many of whom, under normal conditions, would have remained normal. This increase in the number of prostitutes is a distinct menace to the State, soldiers in camp, and especially to our returning soldiers.

It is now becoming recognized that many of the crimes committed by juveniles and adults are committed as a result of mental defects. For example it has recently been proven that chronic drunkenness is a result, in a large number of cases, of feeble mindedness or insanity. Dr. Bowers in his pamphlet "The Relation of Insanity to Crime," states: "A study covering more than 3,000 prisoners has led me to believe that there are a comparatively small number of criminals who deliberately, wilfully, and in a manner wholly responsible, practice crime. On the other hand, I am convinced that there is a very much larger group of more or less mentally defective individuals who are such by the never-changing laws of heredity or through some biological caprice or through the acquisition of disease and who are defined as being anti-social and dangerous elements in society in spite of all the efforts to reform them and this belief has its basis in, and is supported by, clinical facts." In short, we are becoming more and more convinced that vices and crimes are the results of mental aberrations, and we have come, of late years, to look upon prostitution from the same viewpoint. The Massachusetts Commission for the investigation of the white slave traffic found that 51 per cent. of the prostitutes examined were feeble minded. The Chicago Moral Court found in six hundred and thirty-nine prostitutes examined that the proportion of feeble minded was about 85 per cent. and of the one hundred and four sexually immoral girls tested in the Illinois Training School for Girls, 97 per cent. reacted as feeble minded. The New York Probation and Protective Association examined five hundred delinquent girls and found 37 per cent. mentally defective. Dr. Catherine Brannick reports that of the one hundred forty-nine women committed for prostitution to the Massachusetts Reformatory, 42 per cent. were considered feeble minded. Tredgold says "My experience is that about half of the girls admitted into Magdalen Homes on account of 'first fall' are of this feeble minded type." These figures should be sufficient to convince any doubting person as to the mental states of the majority of these women under consideration.

"The reason the feeble minded tend so strongly to become delinquent is that morality depends on two things, ability to foresee and weigh possible consequences for self and others, of different kinds of behavior; and second, on

*Read before the Kalamazoo Academy of Medicine, February 11, 1919.

the willingness and capacity to exercise self restraint. Every feeble minded woman is a potential prostitute. Moral judgment, like any other form of judgment, is the function of intelligence."

The medical profession has labored under difficulties in the past because of lack of proper methods of determining who is, and who is not, feeble minded. The general public, and to some extent the medical profession have assumed that a feeble minded person is one whose condition is plainly evident. As a county official recently said "I don't know anything about your Binet tests or intelligence quotients but I can determine in a few minutes if a girl is feeble minded." This official would be undoubtedly able to pick out the low grade imbecile or idiot but these are not the ones dangerous to society. They are not so prone to commit crimes and a large proportion of them do not marry or reproduce. So often the higher grade morons and borderline cases are passed by with the remark that they are only ignorant and no consideration is given to the question as to why they are ignorant. It is unnecessary for me to say here that if we decide on a standard of normal intelligence there will be all grades downward from this standard to zero, and upward to the highest mentality obtainable. In the downward scale, theoretically at least, there will be reached a point where the individual shows such lack of intellect that he becomes legally irresponsible and is termed defective. Between this point and the normal will be found cases which we designate as borderline cases. Individuals of this class, and of the higher grade defectives, are the ones who really become a menace to the community and a danger to future generations.

During the past ten or twelve years various tests have been devised for estimating the approximate mental level of an individual. Binet and Simon of Paris were among the first to put forth such tests. Since that time various improvements and additions have been made, the two most important being the Stanford revision by Terman and the Yerkes-Bridges test.

In the beginning of the war our Federal Government saw the necessity of taking active measures to prevent the spread of venereal diseases among the troops, and to aid in this work, called upon the Health Departments, of the various State Governments for assistance. Our State Board of Health, with the assistance of the local boards, took upon itself the duties of examining, first girls employed in places where they came in close contact with the public; as, for example, in hotels and restaurants; and, second, women detained on account of questionable character. All those found to be infected were cared for locally or were sent to hospitals in Detroit, Bay City, Ann Arbor, Grand Rapids, Kalamazoo, and other places.

The out clinic department of the Kalamazoo State Hospital undertook, at the request of the State Board of Health, the mental examination of those women who were sent for treatment for venereal diseases to the Devore Hospital of Grand Rapids and the Fairmount Hospital of Kalamazoo. Not all women, of course, examined in these two clinics should be considered prostitutes, the majority of them, however, were undoubtedly such. I was assisted in this work by Dr. Eva Rawlings of the Kalamazoo State Hospital, Professor Renshaw, Professor of Psychology at the Western State Normal; Mrs. Cordelia Creswell, Miss Pauline Camp, Miss Alice H. Campbell and Miss Louise Sullivan of the Board of Education of Grand Rapids. We obtained as complete a family history as possible from each woman and this was supplemented by reports from the probate judges and organized charities and in a number of cases from the patient's former school teachers, physicians, etc. One would, of course, be inclined to question the reliability of the histories obtained from these women and no doubt in some instances the information is misleading but on the whole I believe it quite reliable. A rather superficial neurological examination was made consisting of testing the special and general senses, the reflexes and the neuromuscular condition. The condition of the mentality was based on the family history, ability to get along in school, success in places of employment and the general reaction to environment, as peculiar mental attitudes, delusions or hallucinations, etc., and lastly by estimating the native mental capacity by means of either the Terman or Yerkes-Bridges tests and various performance tests as devised by Healy, Pintner-Patterson and others.

There were 139 cases in all. Their ages varied from 16 to 46, the majority of the women being in their early twenties. Of this number two were undoubtedly cases of Dementia Praecox; two were Psychopathic; thirty-two mentally dull; fourteen were borderline cases; fifty-seven were morons or imbeciles; thirty were normal and two were not diagnosed. Three of the morons had general paresis also and three had epilepsy. This shows 41 per cent. of

the total number examined were morons or imbeciles, and if we include in this the dull and borderline cases, the psychopathic and the insane there would be 76 per cent. of those examined below par mentally.

Twenty-eight of the one hundred and thirty-nine claimed to have had sexual relations only after marriage and the majority of these stated positively that they contracted a venereal disease from their husbands. After careful examination of the histories one might be reasonably well satisfied that thirteen of the twenty-eight were telling the truth so that would leave one hundred and twenty-six prostitutes. This would therefore give us 46 per cent. as morons or imbeciles and 84 per cent. below the average mental standard.

Of the number examined seven were telephone operators; two messenger girls; forty-two waitresses; thirty domestics; eleven clerks; twenty-four factory workers; eleven housewives; six laundry workers, and six had no occupations. The lowest wages received were $2.00 per week and board and the highest $3.00 per day without board the latter working in a munition factory. No attempt was made to find out the definite religious affiliation of the parents excepting to divide them in groups of protestants and catholics. Fifteen per cent. of those examined were brought up in the catholic faith and the others were either protestants or their religious affiliations were unknown. Ninety-two, or 66 per cent., of the one hundred and thirty-nine women had been married at one time, a great many of them having separated from their husbands. Among the one hundred and thirty-nine women there were one hundred and eighty pregnancies which resulted in one hundred and six living children; forty-two miscarriages; thirteen deaths at birth and nineteen children who died in early infancy.

The reasons given for their detention by the authorities are as follows: Thirty-six were detained on suspicion because of frequent association with soldiers; seventy-two were in public service when examined and found to be infected; fifteen were arrested because of being suspected prostitutes; six were reported by physicians; two were examined because their husbands were found to be infected in camp; two were arrested during raids on questionable houses; two were reported by their husbands and one was arrested because of family trouble, it being necessary to call the police. One was detained for selling liquor and one was taken from a hotel on the charge of adultery.

One hundred and six gave a definite history as to when the first sexual experience occurred. One was twelve years of age; three were thirteen; seven were fourteen; nine were fifteen; nineteen were sixteen; fifteen were seventeen; eighteen were eighteen; nine were nineteen; nineteen were twenty; four were twenty-one; two were twenty-three. Fifty-nine, or 44 per cent., gave a history of having the first sexual experience either with their intended husbands or after marriage. The probable cause of the first immorality was given in one hundred and eleven cases. Thirteen were taken advantage of by their intended husbands; forty-six claim to have been seduced by others than their intended husbands; twenty-one state they were assaulted; ten took to this life because of unhappy marriages; thirteen did so to make a living and eight were immoral because of separation from their husbands. Fifty-one, or 36 per cent., gave a history of charging for their services, and of these the majority had no definite schedule, obtaining as much as possible, anywhere from two to fifteen dollars. Fifty-four stated they followed the life of prostitution because of pleasure and companionship. Undoubtedly, a larger number than admitted it received money as the majority of them seemed more reluctant to give this information than anything else pertaining to their lives.

Forty-nine gave a definite history of syphilis. One hundred and twenty-four had a Wassermann test of the blood and of this number thirty-four, or 28 per cent., had positive syphilitic reaction. One hundred eleven gave a history of gonorrhoea. One hundred and twelve gave some information as to the source of infection; thirty stated they obtained syphilis or gonorrhoea from their husbands; eighty-two admitted they were so promiscuous in their relationship with men that it was impossible to say where they obtained the disease. Only five admitted they were diseased by soldiers.

It is impossible, with the small number of women examined, to come to any definite conclusions. One is impressed however with the fact that many of these girls, to the casual observer, present a normal appearance; that is, they are neat in their dress, possess a good memory, and to a certain extent keenness and cunning in looking after their well-fare, but lack comprehension and judgment and are abnormally suggestible. These are defects, especially when combined with increased emotional excitability, which lead to delinquency.

One notices also that a considerable per cent.

fall within the dull and borderline groups. These are sometimes spoken of as the constitutionally inferior, and we have found as others have found, a considerable number of the clandescent or occasional prostitute falls within this class.

Probably not more than 41 per cent. of those examined could be committed to the home for feeble minded. These undoubtedly should be cared for as rapidly as possible. Unfortunately, at present the State has not sufficient room at Lapeer. Granting that these could be cared for, there would still be a number who cannot legally be committed and are especially dangerous as disease carriers and undesirable mothers for future generations. These, I believe, should be cared for in some institution where they could be made wholly or partially self-supporting.

It seems to me to be the duty of the State to see that all feeble minded girls and boys are committed to an institution, and I believe this especially necessary for the higher grades of the mentally defective. Unsexing of these cases would be desirable in preventing propagation of their kind, but would not prevent and might increase the vice that we are particularly interested in at this time. Second, psychopathic inferiors should be kept under strict supervision and if these measures were carried out prostitution would, with its attendant diseases, be greatly diminished.

VENEREAL TREATMENT OF STATE CASES—FAIRMOUNT HOSPITAL.*

Walter den Bleyker, M.D.
Kalamazoo, Mich.

As the treatment of the venereal cases at Fairmount are all followed up from a bacterial standpoint, it is possible to draw some conclusion from the work being done.

The gonorrheal cases are first put under treatment for one month and then the slides for bacterial examinations are taken. The patients are required to have series of five negative slides in succession from the cervix, bartholin glands and the urethra. These slides are taken every other day and if any of the regions show a positive the slides are discontinued for ten days. The series is then begun over again.

Many times the patient will have a series of four negatives in a row and then will show a positive from one of the regions. This prolongs the treatment for about three weeks at least.

The technic consists of first shaving the vulva so that there is less liability of contamination of the external parts.

The treatments are given in a dorsal position with the legs elevated. They consist of first, douches. Second, local treatments (direct method) and third, vaccines.

The douches are given twice daily of one and one-half quarts of a 1½ per cent. creosol solution followed by a small douch of 1-1000 Pot. Permanganate solution.

The direct treatments are given every second day. A Bi-valve speculum is used bringing the cervix into view. The cervical canal and the cervix are painted with 3 per cent. tincture iodine on a long applicator. Then a large cotton sponge is dipped into a 50 per cent. solution of iodine with water. The vaginal vault is swabbed and the speculum withdrawn. Then the large sponge is slowly withdrawn from the vagina. This wipes out the vaginal tract. The vulva is then swabbed with the same iodine solution. Next 2 c.c. of a 2½ per cent. of protargol solution is injected into the urethra.

A mixed gonorrheal vaccine is given every five days.

The treatments have been continued throughout the menstrual periods without any bad effects of any kind. There has been no increase or decrease in the periods during the treatment as far as we could observe. In the cases that have been under treatment there has been almost an absolute lack of cystitis. There has been only one case and she had a marked hemorrhage from the bladder. She gave a history of bleeding from the bladder. A cystoscopic examination had been made on this case and I was told that the bladder was very much congested and that there was some suspicion of malignancy. Her treatments were discontinued for a short time only. The following chart shows the conclusion on twenty-five cases.

Treatment of the syphilitic cases consists of the injection intravenously of some Arsenol Benzol preparation. These injections are given every seven days for six weeks. During the same time they also receive a deep hypo of 2 gr. of Mercury Salicylate every five days. If at the end of six weeks they show no open lesions they are discharged from the institution but are kept under observation.

*Read before the Kalamazoo Academy of Medicine, February 11, 1919.

Age	Social St.	Path.	Time of Treatment	Most Persistent region
21	Married		80 days	Cervix
20	Single		61 days	R. B. S.
19	Single		68 days	L. B. S.
18	Married		89 days	Urethra
36	Married		81 days	Cervix
21	Married	pus tubes	85 days	Cervix
43	Married	cystitis	71 days	Cervix
26	Married		75 days	Cervix
22	Married		64 days	Cervix
21	Married		63 days	Cervix and glands
17	Single	vulvo-vaginal abc.	120 days	Cervix
23	Married		68 days	Cervix
26	Married	laceration Cer.	75 days	Cervix
27	Married		68 days	Urethra
30	Married		54 days	All regions negative
18	Single		51 days	All regions negative
21	Married		45 days	All regions negative
21	Married		56 days	Cervix
42	Married		55 days	Cervix
24	Married		39 days	All regions negative
16	Single	Flu 21 days	61 days	All regions negative
15	Single		55 days	All regions negative
21	Married		52 days	All regions negative
24	Married		50 days	All regions negative

Average length of time of treatment 64 days.

DISCUSSION OF DR. INCH AND DR. DEN BLEYKER'S PAPERS.

DR. A. H. ROCKWELL: These papers have shown some very instructive and interesting work. Has observed the findings in Detroit as to the Hospital phase and the work here compares favorably, especially as to the time confined in the hospitals, particularly in those cases where the tubes are involved. The technic is well worked out. The work at the hospital by the nurses is carried out in a very gratifying manner. The administration of the arsenic preparation is not done by the nurses, but by the physician in charge.

DR. STONE: One of the most important things brought out in Dr. Inch's paper is the comprehension of the fact that the mental state of prostitutes is in so large a percent subnormal, this means considerable in the solution of the problem. There recently died in France, Dr. Grasset, who advocated that borderline cases should be segregated and not allowed to propagate their kind. Recently an account appeared in the newspapers of an investigation of the Adrian Home for Girls. These are almost all of an inferior type and the report of Dr. Barrett four years ago can be found in a printed report to the State, here an account of every case in the Adrian home is given and a large precentage come under the subnormal mental type. What is the solution? It is nothing more or less than the prohibition in the propagation of that species. This subnormal mental type is propagated through generations and the same theory carried further would show that borderline cases would run along in the same way. It is a mistake to consider that the cases will improve and return to normal, they are amenable to the laws of Mendel. It is foolish for these to be sent to the Courts for punishment when they are below the responsible degree of mentality. Told of a case of inferior mentality, which married several times, and had several subnormal children, later in life she became a prostitute, was investigated and sent to an institution for feeble minded. She should have been taken care of earlier in life, thus avoiding the continuance of her type.

PROF. PRAEGER: I cannot discuss this subject from a medical standpoint. The suggestion has been made that even slight subnormal conditions of the mind can be identified as unit characters and that they can be treated in heredity as if they were Mendelian. I hardly think we are far enough in our knowledge of human heredity to be confident of this. The mental states that lead to prostitution must be very varied and complex. We know as yet very few human attributes to which Mendel's principles apply, nor does it seem to be a universal law among organisms with whom we have experimented. Of course, as a general fact, heredity is of tremendous importance. The position of women has changed greatly, especially as a result of the war. Old customs and conventionalities that governed

the social life of men and women have largely disappeared this produces a serious condition, especially at the adolescent period. We must find a new social convention to help our boys and girls under the new conditions.

Prof. Renshaw: I have listened with great interest to Dr. Inch's paper and appreciate your kind invitation to comment briefly upon it. During the Holidays it was my privilege to spend some time with the Ohio Board of Juvenile Research at Columbus, of which Dr. H. H. Goddard is now director. There, Dr. Goddard and a score of highly trained specialists are to be quartered in a new $90,000 building devoted entirely to this kind of work, and it may be said that Ohio is doing more in the way of actively subsidizing medical and psychological research in mental deficiency and allied lines than probably any other state at present.

Professor Praeger in his comment, voices a doubt as to the certainty of morosis as a unit character and its strict adherence to Mendelian principles of inheritance. Early in his work in New Jersey, Goddard held this same view, but was forced to abandon it after an exhaustive study of the histories of more than 324 families with their 1752 offspring, in which he discovered, much to his surprise that where one or both parents were simplex or nullplex the actual number of moron siblings was 708, while according to Mendel's law the theoretical expectation was 704. And in the same families the actual number of normal findings was 348, against expectation of 352. In fine, he says we are dealing with "a condition of mind or brain that is transmitted as regularly and as surely as color of eyes or hair."

One further point. The compulsory education laws of the State of Michigan require every child between the ages of 5 and 16 to attend the public elementary schools. The schools thus become the natural and logical filters through which every child must pass, wherein through proper and adequate medical and psychological inspection, we should be able to know and to index and follow up each case of prostitution and criminality resulting from defects by deprivation that are congenital and if one may venture the assertion in course of say 20 or 25 years, would tend to materially lessen the danger from this source. The men of science of this state need to begin active propaganda to bring these things about. Next to nothing is being done or appropriated at present, except in a small way, of a controlling or preventative nature. The moralist has had his fling at the problem with little decernible effect. It would seem, therefore, to be the time for us to attack from another angle.

Dr. Crane: One point which should be considered along this subject. In Australia the worst offenders of the English Government were segregated, but yet the inhabitants of those islands today are of average mental type and ability. Another island, the Pitcairn island, a place where the worst cut throats and criminals are sent. These also became of average intellectual and moral standard. These things emphasize that we should be open minded and careful in dealing with this subject.

Dr. Jackson: These papers show the necessity of proper Legislation. Michigan has not at this time proper facilities for caring for these people and every member should use all his influence to get the support of the Legislation in the solution of the problem, now being the psychological time to strike. Does not wish to enter into the scientific aspect, but wishes to point out that a great deal of good has already been done, and if these girls are feeble minded, as reported by Dr. Inch, and we stop with the work now, our duty is only partly done. We should urge continuance of the work by the State.

Dr. Inch: Wishes to emphasize what Prof. Renshaw has stated about the necessity of the work in the schools. No doubt that in 25 years we will know where each individual is classified and the problem will be more nearly solved. He did not say in this paper that all feeble minded became prostitutes, but they are potential prostitutes. By prostitutes he does not mean the women who occasionally go wrong, but the habitual wrong doer. We know that feeble minded do produce feeble minded children. If a feeble minded person marries a normal person a certain proportion of the children will be feeble minded. Dr. Crane spoke of the situation in Australia and the Pitcairn islands. That may have been a different kind of crime. Some of Englands brainest men have been sent to these places.

THE COMPLETE MUSCLE OPERATION IN PRIMARY AND SECONDARY PERINEORRHAPHY IMMEDIATELY FOLLOWING LABOR.*

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The purpose of this paper is to study a group of cases of complete repair of the perineum immediately following the labor, for old lacerations with no fresh tears at the time of labor as well as those with different degrees of laceration at the time of labor. Most text books of today either do not mention this procedure at all or condemn it, and in essence advise a repair of the perineum which consists of little if anything more than a passing of a through and through suture from mucous membrane under the tear and out on the opposite side bringing back the raw edges and the mucous membrane surfaces into approximation. It has for sometime been the writer's belief that this type of repair is entirely inadequate in a large percent of the cases and that the failure following this

*Read before the Kent County Medical Society, Jan. 8, 1919.

type of repair is because the muscles having been torn in the perineum have retracted toward their fixed point of origin so far that they are buried in the loose cellular tissue which surrounds them. There is, in fact, therefore, only a union of this cellular tissue without the muscle structures or fascia.

By the term "Muscle Operation" is meant an operation in which a denudation is made extensive enough to actually expose the muscles with their accompanying fascia and then reunite this wound by layers the same as the layers would be united in a hernia operation or in an abdominal incision.

The technic employed is as follows: (1) Patient in lithotomy position on the table (never on a bed). (2) Surgical degree anesthesia. (6) Use rat tooth forceps to pick up muscles to prevent crushing them. (3) Prevent bleeding from the uterus into fresh tears by large pack in vagina. (4) Trim away all devitalized tags of tissue (debridement) (5) Denude then laterally on both sides with scissors or fingers until muscles are well exposed. (7) Suture the edges of the muscle and fascia with Chr. c. g. No. 2. (Deep suture into the muscle favors pressure atrophy and reduces its elasticity). (8) To obliterate the rectocele remove an inverted V-shaped piece of vaginal mucosa after separating it from the rectum by blunt dissection. (9) After the muscles are united the wound is then closed by a single continuous Chr. c. g. No. 2 suture from the point of the inverted V-shaped wedge clear down to the past part of the opening in the perineum. Be sure to pass an occasional suture deeply enough to obliterate all deep spaces. (10) Asepsis must be of the same grade as for abdominal operations.

While it is common practice to suture fresh lacerations of the perineum there seems to be a very general objection to the repair of an *old* laceration at the time of labor. It is the author's idea that we should expect just as good results in repairing an old laceration at the time of labor as in repairing a fresh laceration at the time of labor. The chances of infection are less than they would be in the fresh tear because the manipulations incident to delivery which causes the tear would introduce infection into the unintended laceration more than infection would be introduced into the laceration that was made purposely on the part of the surgeon incident to the repair.

Objections which might be raised against this type of procedure would be (1) Danger of infection. (2) Mechanical disadvantages, due to oedema, hemorrhage and lacerated tissues. The advantages which suggest themselves are (1) Saves dread, pain and extra expense of later operation. (2) Saves time for both patient and hospital, thus increasing the hospital efficiency. (3) The operation is often never done if not at the time of labor. (4) It prevents the formation of much scar tissue. (5) More important still, prevents the atrophy of the perineal muscles and a corresponding loss of function.

The material used in this study consists of 41 consecutive cases of fresh lacerations including three of the third degree, operated as described, immediately after labor. It further includes 20 consecutive cases not lacerated at the time of labor, but in whom old tears existed and where the complete muscle operation was done immediately after the baby was delivered. Two of these were third degree lacerations of several years standing. Further, as a control, 41 consecutive cases were also studied in which no operation at all was done following delivery. In all these cases no special attempt was made to eliminate vaginal examinations. Several were bag cases and different sort of manipulative and operative delivery were employed, including vaginal Caesarian section. Several of the cases were in homes.

SUMMARY OF PERSONAL CASES.

Consecutive cases of laceration operated at time of labor.	Primary Operations	Secondary Operations	Consecutive normal and operative unrepaired cases of labor.
No. less than 3rd deg.	38	18	
No. 3rd degree.....	3	2	
Total.....	41	20	41
No. op. deliveries....	14=35%	3=15%	
Avg. length of labor..	12.5 hrs.	7.5 hrs.	10 hrs.
No. cases with fever over 100 deg. after fourth day:			
1 day.....	5=12%	1= 5%	2= 5%
2 days.....	2= 5%		2= 5%
3 days.....	3= 7%	1= 5%	
4 days.....	1= 2.5%		
5 days.....			1= 2.5%
6 days.....	1= 2.5%		
7 days.....			1= 2.5%
10 days.....	1= 2.5%		
Total.....	13=31%	2=10%	6=15%
Anatomical results—			
Good	39	20	
Fair	2		
Complications—			
Wound suppuration.	2	1	
Wound suppuration and phlebitis.....	1		

Summarizing the following observations are made:

1. The febrile reaction following the complete repair of the perineum at the time of labor is due more to the delivery than to the repair. This is shown by the fact that the temperature ratios advanced in proportion to the duration of the labor and the percentage of operative deliveries. The 41 *unrepaired* cases show a higher morbidity than those where secondary operation is done at the time of labor.

2. The complete muscle operation in the repair of fresh tears at the time of labor is a justifiable procedure in that 69 per cent. had an entirely normal recovery, 26 per cent. had only a slight febrile reaction and in only 5 per cent. did complications of any importance occur, and in these the ultimate result was satisfactory.

3. The secondary repair of the perineum by a complete muscle operation immediately following labor is a safe procedure as far as it is related to infection, and the mechanical difficulties call for only a slightly added patience and skill.

4. The anatomical results in both primary and secondary repair of the perineum at the time of labor are as good or better than those in late operation.

5. It is believed that the percent of complications in the secondary operation at the time of labor will compare very favorably with those of the late operation.

6. There were no deaths in this series of cases.

SITUS TRANSVERSUS AND EXTRAUTERINE PREGNANCY.

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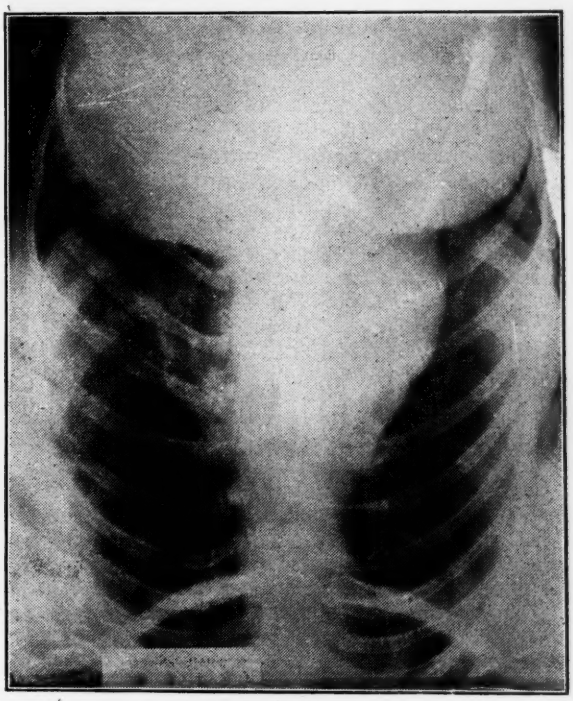
LAKE LINDEN, MICH.

I wish to make this report because of the infrequency of situs transversus in the ordinary practice, and its association with an extrauterine pregnancy. Again, it may be very perplexing in deferential diagnosis of left tubal pregnancy with rupture, rigidity of the rectus, temperature of 99.6 degress F., and increased pulse rate, when we have a situs transversus, as it is in case of right tubal rupture with a normally located appendix. Furthermore, when we have a female patient with pain in the left hypogastrium, rigidity and the other signs of localized inflammation with the physical signs extending to the left pelvis, do not jump at the conclusion that you are dealing with a salpingitis, without making a chest examination to locate the position of the heart. Cholocystitis and chololithiasis would have an added perplexity when it occurred in the left side instead of the usual location. This was demonstrated in the case of A. W. Horn's, described in February, 1915, (Annals of Surgery). The X-ray removed all doubt as to the diagnosis before the operation.

On account of the dangers of misdiagnosis and its consequences, besides the anatomic anomaly, I present the following case:

Mrs. N. G., white, 24 years of age, married two years; never pregnant before. Husband is living.



Family History.—Negative.

Personal History.—Had measles while young with no sequelae. Menstruated first at thirteen years, regular, q. thirty days; flowed three to four days, very moderate.

Had cramps during flow of each period. During the interval she had moderate leucorrhoea. Suffered from no other disease before marriage, which occurred at 22 years of age. One week after marriage became quite ill with a double salpingitis and Bartholin gland infection caused by the "cured" Neisser Diplococcus infection of the husband. She remained in an elevated bed position two weeks recovering nicely with the exception of a more profuse leucorrhoea. Since fall of 1915 has been quite strong. Bowels and kidneys were normal.

Present Disease.—Menstruated regularly q. 30 days till March 4th to 8th, 1917. Then she did not flow till April 17, 1917. On the 5th of April she thought that she was pregnant on account of delayed period and nausea. Had no pain. Metrarrhagia was present in a slight degree each day, or on alternating days till 4 a. m. May 6, 1917, when she had a very severe cramp in the abdomen, low down, more to the left side. Vomited once during pain. By taking enema, pain disappeared. Metrarrhagia kept up, patient feeling well except for a little weakness till 1 p. m. May 9, 1917, when she suffered from severe cramps distinctly in the left lower abdomen. For a few hours before, there had been intermittent cramps of a few minutes duration but the one described above lasted thirty minutes. With this she felt a distinct bearing down sensation.

Physical Examination.—I knew of her Dextracardia, and took in consideration the possibilities of transposed abdominal viscerae, especially the possible left appendicitis. I found the patient lying on a bed on her abdomen, fully dressed. Was moderately nourished; mouth, neck, lungs were all negative. Pulse, 85. Temperature 98.6 degrees F. Heart dullness was on the right side of the chest instead of on the left with the apex in the fifth interspace, left of the nipple line. Valves were all normal. Heart dullness and location of heart sounds were on the right side mirrored as it were corresponding to the usual similar position on the left. The question arose, Did we have a situs transversus?

The abdomen was negative except for a tenderness in the lower left quadrant with moderate rigidity of the left rectus. Lower one-half of the abdomen raised above the upper one-half, appearing bloated. The tenderness was more marked on deep pressure.

Pelvis.—Perineum good. Cervix softish, body of the uterus softer and slightly increased in size, and retroverted. Right pelvis negative.

Left pelvis contained a tender roundish mass, unelastic, left of the uterus, size of a large walnut, which patient says was the tender spot. Left ovary was not palpable separately.

Urine.—1.020, acid, albumen negative, sugar negative.

Blood Pressure.—Systolic 120.

Diagnosis.—Left tubal pregnancy, ruptured; and a probably situs transversus.

Operation.—Laporotomy, 6:50 p. m., May 9, 1917. Ether administered. I made a median incision and found the abdomen contained much clotted blood and the pelvis, one pint of bloody serum and many old blackish clots. The omentum hugged the left Fallopian tube and the lower left pareital peritineum. We had here a left tubal pregnancy, isthmus and ampulla involved, size of a horse chestnut, 2½ in. by 1½ in. It was ruptured near fimbria.

I excised the entire left tube. The abdomen was well cleared of the blood clots. On examination of the abdomen I found the liver on the left side with the easily emptied gall bladder resting under the left lobe at the left costal border, the small right lobe being in the epigastric region. The caecum rested in the left iliac fossa with the appendix. The latter was not adherent but larger than normal and on account of possible future difficulties in diagnosis I removed it, using an invaginating Brand Purse-string of linen for the stump. Abdomen was closed layer by layer with no drainage.

She made an uneventful recovery, leaving the hospital on the tenth day and was up on the twelfth. I have seen her several times since and she has been perfectly well.

Accompanying this report will be found an X-ray of the chest.

TWO THOUSAND SEVEN HUNDRED SIXTY-TWO INDUSTRIAL ACCIDENT CASES CLASSIFIED.

E. I. CARR, M.D.
LANSING, MICH.

These cases are consecutive and from a period antedating the present well equipped first-aid stations with full time nurses that most of the manufacturing plants have today. They represent practically all accidents occurring in several of the large Lansing factories who are mostly engaged in the manufacture of engines, automobiles and automobile parts. From the period chosen all injuries were supposedly sent in for examination and necessary treatment, so that many conditions ranging from the trivial abrasion to the serious crushing accident or alarming subsequent infection are included. If the cases of a recent period that reached the surgeon were incorporated in this group the following classifications would be altered because the competent nurses in the factory dressing stations now ably care for many simple injuries. A fairly comprehensive estimate may, therefore, be obtained from studying the following of what accidents are happening and what parts of the body are being injured in

these machine, wood, forge, paint and other shops necessary for the manufacture of engines, automobiles and automobile parts.

I. ANATOMICAL CLASSIFICATION.

Hands and fingers	1,303
Feet	241
Head	134
Trunk	207
Arms	191
Legs	150
Eyes	532
Gas suffocation	3
Electrocution	1
	2,762

II. DIAGNOSTIC CLASSIFICATION.

Fractures	108
Contusions, lacerations, cuts and abrasions	919
Amputations	52
Dislocations	8
Infections	414
Burns	158
Sprains	59
Bruises	208
Puncture wounds	154
Strains	130
Foreign bodies	528
Hernia	20
Suffocation	3
Electrocution	1
	2,762

III. ANATOMICAL CLASSIFICATION DISTRIBUTED.

Hands and fingers—

Fractures	28
Lacerations, contusions, cuts and abrasions	660
Amputations	44
Dislocations	3
Infections	338
Burns	32
Sprains	10
Bruises	113
Punctures	60
Strains	2
Foreign bodies	13
	1,303

Feet—

Fractures	17
Lacerations	50
Amputations	4
Infections	28
Burns	36
Sprains	2
Bruises	36
Punctures	68
	241

Head—

Fractures	7
Cuts	81
Infections	10
Burns	21
Bruises	15
	134

Trunk—

Fractures	17
Abrasions	16
Dislocations	5
Infections	2
Burns	7
Sprains	6
Bruises	13
Punctures	3
Strains	117
Foreign bodies	1
Hernia	20
	207

Arms—

Fractures	17
Lacerations, abrasions and cuts	81
Amputations	2
Infections	25
Burns	24
Sprains	17
Bruises	9
Punctures	6
Strains	9
Foreign bodies	1
	191

Legs—

Fractures	22
Contusions	31
Amputations	2
Infections	11
Burns	13
Sprains	24
Bruises	22
Punctures	16
Strains	2
Foreign bodies	7
	150

Eyes—

Burns	25
Punctures	1
Foreign bodies	506
	532

IV. DIAGNOSTIC CLASSIFICATION DISTRIBUTED.

Fractures—

Legs	22
Trunk	17
Head	7
Feet	17
Fingers	28
Arms and forearms	17
	108

Amputations —

Legs	2
Arms	2
Toes	4
Thumb	7
1 finger	21
2 fingers	11
3 fingers	4
4 fingers	1
	52

Infections—

Toes	28
Fingers	338
Arms	25
Legs	11
Head	10
Trunk	2
	414

Sprains—

Arms	17
Legs	24
Hands	10
Feet	2
Trunk	6
	59

Puncture Wounds—

Arms	6
Feet	68
Hands	60
Legs	16
Trunk	3
Eye	1
	154

Contusions, Lacerations, Cuts and Abrasions—

Legs	31
Trunk	16
Head	81
Feet	50
Fingers	660
Arms	81
	919

Dislocations—

Shoulders	5
Fingers	3
	8

Burns—

Trunk	7
Legs	13
Feet	36
Hands	32
Head	21
Arms	24
Eye	25
	158

Bruises—

Hands	113
Feet	36
Legs	22
Trunk	13
Arms	9
Head	15
	208

Strains—

Hands	2
Trunk	117
Arms	9
Legs	2
	130

Foreign Bodies—

Eyes	506
Hands	13
Legs	7
Trunk	1
Arm	1
	528

128 West Allegan Street.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

A. L. Seeley, Chairman .....Mayville
E. W. Toles .....Lansing
R. S. Buckland .....Baraga

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All communications relative to exchanges, books for review, manuscripts, news, advertising, and subscription are to be addressed to D. Emmett Welsh, M.D., 4th Floor Powers Theater Building, Grand Rapids, Mich.

The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

Subscription Price—$3.50 per year, in advance.

Entered at Grand Rapids, Michigan, Postoffice as second class matter.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 26, 1918.

April

Editorials

ANNUAL MEETING

Place—Detroit.
Time—May 21-22.
Host—Wayne County Medical Society.
Program—One of the very best.
Features—Victory meeting.
Attendance—The best.

The following have been appointed on the Committee of Arrangements:

Doctor F. B. Tibbals, Chairman, Kresge Medical Bldg. Doctor John N. Bell, David Whitney Bldg. Doctor L. J. Hirschman, Kresge Medical Bldg. Doctor E. W. Haass, Fine Arts Bldg. Doctor Harold Wilson, David Whitney Bldg.

The following members were appointed Chairmen of the various Sub-Committees:

Dr. Louis J. Hirschman, Committee on Hotels, Halls and Meeting Places and Registration.

Dr. Harold Wilson, Committee on Entertainment.

Dr. E. W. Haass, Committee on Finance.

Dr. Guy L. Connor, Committee on Automobiles.

Dr. E. H. Sichler, Committee on Printing, Badges, Posters.

Dr. John N. Bell is Secretary of Committee on Arrangements.

The Chairman has appointed Dr. R. L. Clark, Chairman of the Committee of Exhibits.

MEMBERS ATTENTION.

The time for the payment of the State Society dues has been extended to May 22. Those failing to pay their dues before that time will be placed on the suspended list and removed from the mailing list of the *Journal*.

Those failing to pay their State Society dues by May 22 cannot secure tickets to the entertainment functions of the Annual Meeting to be held in Detroit May 21 and 22.

DEBRIDEMENT.

One of the foremost terms that will be frequently resorted to in discussing the surgical treatment of war wounds is debridement. While the word has been somewhat foreign to our surgical nomenclature in America the principle that it implies is not by any means new or revolutionary. The excision from a wound of lacerated devitalized and infected tissues and the removal of all foreign material found has been practiced and applied on many occasions during pre-war times. It has possibly not been utilized so extensively nor did any one or group of surgeons find themselves confronted with such large series of cases to study and witness the end results that accrued following its application. Its basic principle is sound and as one continues in closer contact with conditions in which it has been applied the opinion becomes more firm in regard to its efficacy.

Still, one must familiarize himself with the steps of the technic ere recommending or condemning the method and not speedily conclude that its surgical potency lies wholly in a reckless and cold excision of a wound area and belittle anatomical structures or functional re-

sults while so doing. There is called forth the exercising of surgical skill based on a thorough knowledge of anatomical relationship if one is to secure the desired results while employing this procedure. Then, too, the post operative care demands equal knowledge of basic principles lest the whole procedure become one of harmful interference.

I am becoming more inclined to the opinion that the good that will and can be accomplished by debridement is very frequently nullified by improper and misdirected after care. The greatest and most common pitfall being the prolonged irrigation and drainage of the resulting wound. By doing so one may gradually secure the filling of the wound with granulations and see this repair process slowly take place until the wound becomes filled up to the dermal layer. It is then that an arrestment of repair takes place. The wound seemingly becomes dormant and no amount of stimulating applications of Balsam of Peru, Nitrate of Silver, moist boric or iodine applications will induce dermatization and completed healing. On the other hand secondary infections, the formation of abscesses and sinuses are prone to ensue as complications and tax one's ingenuity while at the same time discourage one from employing the method on future occasions.

Prolonged reflection on this possible aftermath has lead me to believe that it is a condition that can readily be avoided if one remembers the physiological process that ensues during nature's effort to restore continuity of soft tissues. The necessity exists for each to familiarize himself again with the physiology or pathology of repair.

To summarize the factors that tend to induce failures I present in tabulated form the following:

1. Granulations promptly form in the deeper parts of the wound and become richly intermeshed with elastic tissue.

2. The drainage tubes, irrigation and packing produce a wide gaping wound that must be filled with granulations but which on the other hand are prevented from forming rapidly by their presence, especially after the wound has become half filled.

3. The delayed removal of this drainage material so retards new granulations that the first formed granulations have time to receive their deposits of fibrous tissue. This fibrous tissue likewise promptly follows its reparative function and contracts and in due time brings about normal cicatricial tissue that is scant in blood supply and firm in constituency while at the same time incapable of producing or throwing out additional granulation material sufficient to fill in the entire wound.

4. The result being a wound partly repaired and presenting a floor that is firm, leathery in character and dormant as far as further tissue production is concerned. It is in an arrested stage of repair that resists all stimulation.

When this occurs one is confronted with a stagnant wound, which may not show any signs of infection and have a so-called "healthy appearance," still it will not progress to final and complete closure, no matter what applications are applied. At first appearance it is a wound that deceives one and he who has not met and observed their characteristics is inclined to an optimistic view and prognosis. But passing weeks of continued resistance to every application which achieve but little induces one to alter his attitude to the condition that exists. One then realizes that a well nigh insurmountable barrier has been encountered. That a more radical procedure must be resorted to.

This procedure consists of the excision of the existing scar tissue and the closure of the wound by approximation by means of suture. It is the only measure effective and still it must not be employed until the micro-organisms existing in the wound have been determined to be by repeated microscopical examinations less than 5 or 6 to the field. The closure must be done under all aseptic precautions and in doing so one must well plan his incisions so as to obtain required amounts of skin to completely close the frequently large gaping wounds that present. The success of the closure is wholly dependent upon the avoidance or shall we say prevention of infection.

I have endeavored to thus generally outline causes for failures following debridement and also advance the method by which the failure can best be remedied. It then becomes evident that this necessity for instituting this secondary closure may be prevented if we but observe the following:

1. Early withdrawal of drainage material.
2. Avoidance of every retarding factor to

rapid proliferation of granulation material by close attention to proper observance to the principles of drainage.

3. Repeated daily bacteria counts.

4. Drawing the edges together with sutures or laces.

5. Late primary suture on the third to sixth day providing the bacteria count is five to seven to a field.

One must be familiar with the essentials of after treatment if he expects to secure the greatest possible results, as well as prompt, from the employment of the debridement procedure.

VICTORY LIBERTY LOAN.

The United States Government needs the money of Michigan medical men, but Michigan medical men, in double degree, need the bonds or notes of the United States Government. In other words, the reader of *The Michigan State Medical Journal* who lends every available dollar to the nation in the Victory Liberty Loan of next April, helps his government—but helps himself even more.

Professional men are notoriously poor investors. So long as they stick to their profession they prosper; but it is often easier for them to make money than to keep it. There is probably not a medical practitioner in the state who would not be better off today had he put all his savings into government bonds.

Physicians and surgeons rarely have time thoroughly to study the security field, with the result that they now hold, in the aggregate, hundreds of thousands of so-called securities that pay nothing on the investment and cannot be sold for a fraction of their cost.

Therefore the readers of *The Michigan State Medical Journal* can not do better for themselves—aside from the patriotic obligation of seeing the nation through its war financing—than to buy heavily of the bonds or notes of the fifth loan. These Victory obligations have been especially designed as a business and professional man's investment. They are to run for a very short period, which will insure their being classed everywhere as a cash asset. They will enjoy so active a market, therefore, that they will be protected against market vicissitudes. They will return, interest rate and exemptions considered, the highest rate offered by this nation since Civil War days. They give the public one more chance to invest in that which was never available to them from the 60's to 1917—a United States government bond or note on a basis to yield a good interest return on the investment.

As regards the future price of United States government securities—the safest investment in the world—one may form an opinion by the recent market course of the United Kingdom of Great Britain's 5½ per cent. convertible notes sold to American investors shortly before the United States entered the war. These notes matured Feb. 1 and were illuminating in that they provided that the owner might exchange them at any time up to the date of maturity for British government bonds bearing the same rate of interest and running for twenty years.

The notes, as a short time investment, had been changing hands at a price of about 99. But as soon as the news of Germany's surrender reached this country there was such a rush of investors to obtain the notes that the price shot up to 105. They remained at a premium till maturity. Men experienced in such matters knew that long term British government bonds paying a liberal interest return must within a comparatively short time after the close of the war rise to a premium and add to that premium steadily as the average rate or interest on all borrowing decreased with the restoration of normal times.

The British nation is waterlogged with debt as compared with the small national debt of the United States today. If British bonds already have risen to a premium in certain cases, it is obvious that all American government securities must in a comparatively short time sell at a premium over the price at which they are sold to the patriotic public.

Ittiolo.—An ammonium sulphoichthyolate preparation manufactured from bituminous shales found in Giffoni Vallepiana, Italy. Its composition closely resembles that of ichthyol. Since ittiolo closely resembles that of the original ichthyol, it is claimed that its actions and uses are also essentially those of ichthyol. Guiseppe W. Guidi, New York.

Quinine Ethyl Carbonate—Merck.—First introduced as euquinine. It is almost insoluble in water, and is therefore practically tasteless. Its actions, uses and dosage are essentially those of ordinary quinine salts. Merck and Co., New York. (*Jour. A.M.A.*, Feb. 1, 1919, p. 345).

Editorial Comments

Bring your certificate of membership to the Annual meeting.

The Eighth Conference of Industrial Physicians and Surgeons was held March 14, 1919, at the William Penn Hotel in Pittsburgh, Pa., under the direction of the Division of Industrial Hygiene and Engineering of the Bureau of Inspection of the Department of Labor and Industry, Commonwealth of Pennsylvania.

The Fiftieth annual meeting of the American Medical Editors' Association will be held at the Marlborough-Blenheim Hotel, Atlantic City, on Monday and Tuesday, June 9 and 10 and will take the form of a semicentennial celebration and a Victory Meeting, emphasizing the part which this Association and its members have taken in the world's war.

A list of those who have paid their dues will be on hand at the State Meeting and the secretaries of the various county societies are requested at that time to check up with the State Secretary.

It is unfortunate that this issue of the *Journal* is smaller than previous issues. This is due to the fact that we did not receive any clinics from Ann Arbor or Detroit. Therefore we had to use our scissors considerably.

The article presented by Doctor E. Schnoor is a good and timely one relating to Encephalitis Lethargica or "Sleeping Sickness" and the paper is deserving of careful consideration.

The Opportunity Monograph published by the Surgeon General's Office for disabled soldiers, sailors, and marines presents so many object lessons that one is almost astonished to know the different fields in which the disabled soldier, sailor, and marine may gain a livelihood. They are prepared by the Federal Board for Vocational Education under such headings as "The Law as a Vocation," "Safety and Fire Protection Engineering," "Oxy-Acetylene Welding," "Electrical Employments with Utility Companies," "Electrical Construction, Maintenance, and Repair Occupations," "Concrete Construction and Cement Manufacture," etc., and from these different vocations to select from one is led to believe that sometimes accidents are a betterment for some people.

Provision will be made for a stereopticon for those wishing to use lantern slides in connection with papers at the various section meetings.

In the February issue of the **Journal,** the articles "Influenza and Pneumonia with Their Complications," by Major Lynn S. Beals, Camp Custer, Mich., and "Thrombosis of the Coronary Arteries," by Doctor James B. Herrick, Chicago, Ill. which were read before the Kalamazoo Academ of Medicine were merely views of the origina papers and the discussion, and were published without being recorrected by the authors.

Usually the program of the Annual Meeting of the Michigan State Medical Society is given in the previous month's issue. This cannot be done this year as the Secretary-Editor has no positive information as to the number of papers to be given in each section. This together with information relative to the entertainment will appear in the May issue of the **Journal** which will be in the hands of every member of the Society by May 15th. The physicians are all extremely busy at the present time, and reconstruction and debridement seem to have taken the profession under its wing. These bright and beautiful days have given new life and zest to the profession and in a few months these many changes will bring wonderful results that no doubt the pages of the **Journal** will glitter with new thought and idea, not that we will loose the old faces and long remembered names but they will take on new forms as it were and become exponents in the universal idea of betterment.

Just as we are going to press we received notice of the death of Dr. Edward James O'Brien, Cheboygan, Mich., who died February 25th.

Lieut. Dana Post, M.C., of Detroit, Mich., was killed overseas in August, 1918, while on duty in an advanced First Aid Dressing Station, by the direct hit of a high explosive shell. Lieut. Dana is the fourth member of the State Society to pay the supreme sacrifice.

EFFECTS OF TYPHOID FEVER AND ANTI-TYPHOID IMMUNIZATION OF PULMONARY TUBERCULOSIS.

In the summer of 1917 a typhoid fever epidemic occurred at the Trudeau Sanatorium. Thirteen patients and two maids developed typhoid fever. Since

the thirteen patients were all suffering from pulmonary tuberculosis in a more or less active form the opportunity was given to study the interacting effects, if there were any, between the two diseases. As soon as the presence of the epidemic was appreciated, antityphoid inoculation was performed on 124 tuberculosis patients at the sanatorium. The authors, Brown, Heise, Petroff and Wilson report the results of their studies on these tuberculous patients who had typhoid fever or prophylactic inoculation, and the deductions to be drawn therefrom. Results are tabulated in five tables and detailed case reports of every typhoid fever patient are appended at the end of the study.

Among the more important conclusions worked out by the authors are the following:

Inactive pulmonary tuberculosis exerted no appreciable effects upon the course of the typhoid fever, but as the two deaths from typhoid fever occurred among those with active pulmonary tuberculosis, it appears possible that active pulmonary tuberculosis may influence the typhoid fever and render recovery less likely.

Typhoid fever does not influence inactive pulmonary tuberculosis and apparently also does not affect active pulmonary tuberculosis.

Antityphoid inoculations did not apparently influence the inactive pulmonary tuberculosis. No permanent untoward results followed in any case.

The immediate results of treatment in patients receiving antityphoid inoculations differed in no way from the immediate result obtained in two other years when such inoculations were not given.

Brown, Lawrason, Heise, F. H., Petroff, S. A., and Wilson, George E. A Study of the Effects of Typhoid Fever and Antityphoid Immunization on Pulmonary Tuberculosis. History of a Typhoid Fever Epidemic at the Trudeau Sanatorium. *American Review of Tuberculosis,* February, 1919, Vol. II, No. 12.

GOOD JUDGMENT AS TO BLOOD PRESSURE.

The instinct of self-preservation on the one hand, and the habit of introspection on the other, lead human beings to be continually more or less anxious in regard to their physical condition. From time to time the advances which are made in medicine are considered by members of the profession and the laity to have arrived at the last word which can be said in regard to a given subject, and as a consequence the results are taken as absolute facts. In reality, they should be regarded with the greatest possible interest, but only as marking another milestone in diagnosis and therapeutic progress.

Any one who chooses to go back over medical literature during the last three or four decades will find that physicians and the laity from time to time have been fairly carried off their feet by new ideas which by virtue of their novelty and apparent reasonableness have been readily accepted. When instruments of precision in the study of the blood first came into vogue it was remarkable how many conditions were said to be dependent upon anemia, and even at the present time anemia is regarded as the cause of symptoms when, in reality, it is, as are all the other symptoms presented by the patient, a result and not a cause. Again, uric acid for years held the front place as a means of explaining certain conditions which were at first puzzling, but which seemed to be quite clear after the uric-acid theory had been promulgated, but now we have learned that uric acid in itself is not harmful, and that it, when in excess, is the result and not the cause of certain conditions of malnutrition or illness.

Another illustration of this tendency to seize upon novel ideas in the hope of obtaining the explanation of illness is found in the all too frequent tendency on the part of some physicians to make a diagnosis of tuberculosis when slight prolongation of expiration and slight impairment of resonance at one apex is taken as a pathognomonic sign of this infection, without remembering that a pneumonia or pleurisy many years before, or a recent attack of influenza, may be the real factor in the case.

Among the more recent of these fads, because they are fads when they are carried too far, is the matter of blood-pressure. In just the same way that a composite photograph of a thousand men might produce a form of nose which would be considered as a normal type, so an estimation of a thousand blood-pressures may be taken as of statistical value in deciding what the pressure of a healthy adult of a given number of years should be. Yet every one recognizes that individuals have very wide variations as to the form of the nose without having an organ which is functionally impaired or in any way incapable of performing its normal duty. The same thing holds true as to blood-pressure. It may be true that the average normal, in adult life and health, is ninety diastolic and one hundred and thirty systolic, but it is also true that many persons vary considerably from these figures, and yet are in perfect health. Nevertheless they become unduly frightened if they find that their pressure is above or below what may be considered the theoretical normal, and not infrequently get into such a state of mental and nervous irritability that when the blood-pressure is taken it registers ten or fifteen points higher than it usually is in that patient under ordinary circumstances. Furthermore some physicians, and many patients, think that a variation of five or ten points is of the greatest possible importance, when placed upon the scales

on the side of evil or on the side of good, when as a matter of fact, the acuity of the observer of the condition of the patient at the moment that the pressure is taken may be entirely responsible for the varying results obtained at different times.

Because too much attention is paid to blood-pressure many patients are put upon rigid diets which improperly nourish them, and, feeling miserable because of impaired nutrition, they conclude that they are seriously ill.

There can be no doubt that one of the things which we need at the present time is a careful study of blood-pressures, associated with careful estimation of weight and size. A blood-pressure which may be abnormally high for a man weighing one hundred and twenty pounds may be absolutely essential to a man weighing two hundred and twenty pounds, and, on the other hand, a fairly high blood-pressure, which is not distinctly beyond all reasonable bounds, is essential if a powerful man is to successfully take strenuous exercise whether it be along the line of sport or work. As a matter of fact we think it may be fairly stated that the prognosis and therapy of cases of high blood-pressure is to be more governed by careful urinalyses to determine the condition of the kidneys than by any other means. A man who has a blood-pressure thirty or forty points above the statistical normal for his years, and in whom repeated examinations of the kidney function show no renal lesion, may well be put in that class which are considered healthy, and to a certain extent peculiar, because they are higher than the average. On the other hand, if a patient's blood-pressure be twenty-five points above the statistical average and the urine shows some albumin and casts a comparatively moderate pressure has more significance.

Diet in the treatment of blood-pressure is resorted to with too little care in the vast majority of cases. As a matter of fact the rules of diet in such patients can be summed up briefly by the words "moderation in all things," rather than by the words which strike from the patient's list many articles which are highly nutritious and which he needs, not only on a nutritional basis but also because, through years of use, he has gotten his system in such a state that it is dependent upon these food products. We clearly recognize that patients who have taken morphine and alcohol for considerable periods of time have so changed their nutritional processes that they are not only able to oxidize these substances in larger quantities than an ordinary individual, but they may, at times, get distinct benefit from them, and to some extent the same rule holds true in regard to red meats, which the physician is all too prone to strike from the diet list without any good reason except that he is following the fashion which possibly has been started by some prominent member of the profession, who later on has seen the error he has made, but his followers perpetuate his error long after he has recognized his mistake. In other words, most of these patients with high blood-pressure need only to be told to eat sparingly and to use plainly cooked foods and to avoid beverages and condiments which are designed to force a fagged and tired digestive apparatus into dealing with the excessive quantities of food which they may ingest for the purpose of pleasing their gustatory nerves. The old motto "moderation in all things" is to be employed by the patient who has been prone to overeat and overdrink, and equally by the physician who thinks that because a high blood-pressure is present in a given individual that that individual would be better off if his blood-pressure falls as a result of impaired nutrition, at which time the patient may feel far more ill than he felt when the physician discovered that his blood-pressure was theoretically too high.

Closely associated with this point is the additional one of considering that a patient's pressure is always dangerously high because it shows too high a record at a single examination. This is just as much of an error as to decide that a man's urine is always normal, because a single sample does not reveal a pathological condition. Not infrequently a true record of a patient's average blood-pressure is not obtained until it has been taken so often that the procedure is regarded by the patient as a matter of course, and as a result nervous tension, as a factor in raising blood-pressure, is not met with.

AMBULATORY TREATMENT OF GASTRIC AND DUODENAL ULCER.

Freeman, in the *Virginia Medical Monthly* for October, 1918, well says that in a group of cases like the one under consideration it becomes very necessary to outline a course of treatment which will allow the patients to continue their daily avocation. For pecuniary reasons it is quite impossible for these patients to follow out a systematic rest cure in a hospital, so in the clinic he depends upon the following course of treatment as being one the patient may take at home, and from the results obtained he feels this treatment is justified. The treatment:

First, focal infections. He removes when possible all focal infections, especially those about the teeth and sinuses. He excludes, as far as possible, all conditions within the abdomen which may be associated with, or produce, symptoms similar to ulcer.

Second, habits. He stopped the use of alcoholic stimulants, tobacco, tea, and coffee.

Third, diet. In his series he gave a mixed diet of carbohydrate, protein, and fats, but he gives the

preference to carbohydrate food as carbohydrates leave the stomach more quickly than protein and fats, and by leaving the stomach more quickly make less demand upon the secretory and motor power of the stomach. The opening and closing of the pylorus is controlled by the presence of free acid in the stomach and in the first part of the duodenum. Free acid in the stomach contents coming in contact with the pylorus causes the pylorus to open and the presence of free acid in the first portion of the duodenum causes the pylorus to close, and the pylorus remains closed until the contents of the duodenum are made alkaline; thus, the duodenal control of the pylorus is the stronger of the two. Carbohydrate foods by not combining with the acid in the stomach allow free acid to quickly appear in the stomach contents, which, coming in contact with the pylorus, opens the pylorus and permits the food to pass on into the duodenum.

The fact that carbohydrate food leaves the stomach quickly, that it gives the stomach less mechanical work to do, that it makes no demand upon the acid secretions of the stomach, leaves it quite apparent that the diet that makes the smallest demand on the stomach is the one that should give the best results in the treatment of these cases, but in the ambulatory treatment we must always remember that it is always necessary to allow a diet that will retain a sufficient amount of protein and fat to maintain the body in a state of good nutrition, for if nutrition is not maintained the healing of the ulcer will be very much delayed and sometimes be impossible. When possible the following diet was given for the first two weeks:

7 A. M.—6 ounces of milk.
9 A. M.—Egg-albumen.
11 A. M.—Cup of bouillon with one egg.
1 P. M.—Rice cooked in milk.
3 P. M.—Egg-albumen.
5 P. M.—6 ounces of milk.
7 P. M.—Egg-albumen.
9 P. M.—6 ounces of milk.

No food was given from 9 p. m. until 7 a. m.

However, most of his patients were unable to take nourishment every two hours and from the beginning of the treatment were put on soft food three times a day, with a glass of milk or some other liquid food between meals and at bedtime. The following foods were allowed: Well-cooked cereals, especially cream of wheat and oatmeal, mashed potato, baked potato, macaroni prepared without cheese, boiled rice, milk toast, soft-boiled eggs, and stewed fruits. After the patients had been under treatment for two months the light forms of meat, such as chicken, fish and lamb, were allowed once a day; then the diet was gradually increased until at the end of three months the patients were taking thoroughly cooked vegetables such as spinach, cauliflower, string-beans, etc. This change to liquid and soft diet is so great for this type of patient, who has been accustomed to eating very coarse food rapidly and at irregular hours, that Freeman believes he obtains almost as good results in the ambulatory treatment of these cases as he does with the people in the better walks of life who take the regular rest-cure treatment in a hospital.

Fourth, hot applications. Before retiring these patients are all directed to use hot moist applications to the abdomen for forty-five minutes. This adds materially to their comfort by lessening gastrospasm and pain.

Fifth, medicinal. His patients were given tincture of belladonna before meals and an alkali after meals. He always began the treatment with three drops of belladonna three times a day, and increased one drop per dose per day until the physiological tolerance of the drug was reached, frequently giving as much as 25 drops or more three times a day. It has been his experience that ulcer patients tolerate very large doses of belladonna, and that good results from the use of the drug are not obtained unless it is used in large doses. By beginning with small doses he has avoided the unpleasant toxic symptoms of the drug that occasionally occur. Freeman believes that belladonna indirectly aids materially in the healing of the ulcer by lessening gastric secretion, pylorospasm, or gastrospasm, and by the relief of pain.

These patients were also given moderate doses of 20 to 30 grains of bismuth subcarbonate and calcined magnesia one-half hour after meals. He used magnesia as a rule instead of bicarbonate of soda because it has a laxative effect upon the bowels, has a greater combined power for free acid, and does not produce carbon dioxide in the stomach, which may produce atony.

The author concludes as follows:

1. In a large number of cases of gastric and duodenal ulcer Freeman feels that the ambulatory treatment is justified.

2. That in the dietetic management of these cases the preference should be given to carbohydrate food.

3. Good results are obtained only with those patients who can tolerate belladonna in very large doses.

A CLINICAL STUDY OF ONE HUNDRED AND FIFTY CASES OF BRONCHIAL ASTHMA.

Rackemann, in the *Archives of Internal Medicine* for October, 1918, informs us of the fact, long recognized, that the treatment of bronchial asthma

resolves itself into the treatment of the exciting cause if this can be identified. He believes the best results are obtained in the cases of extrinsic asthma, especially in pollen cases. Treatment with an extract of the specific pollen will relieve the hayfever and the asthma often entirely. Specific treatment of the horse asthma cases is usually only partially successful, although the results obtained justify the effort.

The question of dosage as well as the time interval between doses is, of course, important, but discussion of these factors must be based on a much larger series of cases. The general impression here has been that relatively small doses, only sufficient to cause a noticeable local reaction on the arm persisting for twelve hours, and given not more often than once in five days, have given the best result. The doses have been continued for at least twenty-five days after the asthma has abated.

Throughout his work the dosage has been measured in milligrammes of total nitrogen—not in quantities of solutions.

There has been no experience with specific treatment of other extrinsic causes, but avoidance of the particular protein has usually been possible and satisfactory.

The treatment of intrinsic asthma is far from satisfactory. Local treatment of the nose, throat and teeth has been long considered important. The removal of nasal polypi, the drainage of sinuses, and the extraction of teeth will all relieve the asthma. This relief, however, rarely amounts to a cure, and even if very marked is rarely permanent. The fact that many patients have spontaneous intervals of freedom from asthma which last for months or years makes the results of any treatment difficult of interpretation.

The use of vaccines in the cases presumably due to bronchial infection, whether or not these infections are accompanied by emphysema, and the study of the bacterial flora in the sputum from these cases must be left for some future time.

In following 150 cases, it has been a matter of the greatest interest to discover why periods of improvement have taken place. In most cases no reason for this could be discovered. All of which suggests the marked nervous or autonomic element which doubtless exists. One patient who had been listed under chronic bronchitis and emphysema remained free of asthma, in spite of a continued cough, for eleven months following exactly from the day of performing the various intradermal skin tests on his arm—which tests had been all negative.

Potassium iodide remains, as Lemann (Treatment of Bronchial Asthma, *Am. Jour. Med. Sci.*, 1911, 142, 781) puts it, the sheet-anchor in the treatment of asthma. It is especially effective in cases whose asthma depends on a bronchitic infection.

Calcium salts in the present series have undoubtedly helped some cases.

Adrenalin is a very important drug in the treatment of asthma; a subcutaneous injection of adrenalin chloride solution (Parke, Davis & Co.) will control the attack in almost every case. It, however, has relatively little effect on the general control of the disease. There is much literature on the use of adrenalin in asthma.

Asthma powders of various kinds, most of which contain niter and stramonium leaves, all help the attack, but do not cure. The treatment of associated conditions—constipation, hyperacidity, etc.—is always important, and the writer has seen more than one case very markedly improved on regular doses of a mild alkaline aperient salt.

Frequently unconsidered and apparently unimportant suggestions, such as a temporary change of residence, a slight temporary modification of the diet, ether anesthesia, temporary rest in bed with full diet, correction of faulty attitude, etc., have been of the greatest assistance, and not infrequently have led to a virtual cure. On all these various methods there is rarely any good control, because so many patients have intervals of freedom from attacks, which intervals may last for several years.

SYPHILOLOGY.

CEREBROSPINAL SYPHILIS.

At one time there was some doubt as to the role of the spirochete pallida in the nervous manifestations of syphilis, but it is now well known that the exciting cause of all syphilis including the so-called parasyphilitic disease (tabes and paresis) is infection with the spirochete pallida. The presence of this organism has been demonstrated in the cerebrospinal fluid of secondary cases by inoculation of the monkey and also in cases of nervous relapse following salvarsan by inoculations of the rabbit.

G. L. Qualls (Military Surgeon) points out that the contributing factors in acute invasion of the central nervous system are:

1. Strains of a high invasive power, having a special affinity for the central nervous system.
2. Strains resistant to treatment.
3. The destruction of a greater number of parasites in the body outside of the central nervous system and cerebrospinal fluid by salvarsan, and because of the inability to reach them by treatment, or of their resistance to drugs, they remain. This sudden withdrawal of inhibition gives the remaining or resistant organism a chance for rapid multiplication and development in the cerebrospinal system.

In the light of our present knowledge it would appear that practically all cases of syphilitic in-

volvement of the central nervous system are acute and it has been shown (Wile and Stokes) that 60 to 70 per cent. of all syphilitics, in the secondary stage, show signs of infection of the central nervous system in varying degrees. The cases treated by the author by means of intraspinal medication seem to have improved more rapidly and improvement was apparently more permanent than in those receiving neosalvarsan only. He believes that the administration of mercury to its limit of tolerance, in conjunction with intravenous and intraspinal medication of salvarsan, is a potent factor for good. By employment of proper technic the amount of serum given intraspinally may be materially increased without depression or serious after effects, and with more rapid improvement.—Alfred Schalek in *The Urologic and Cutaneous Review.*

NEW ASPECTS OF MEDICAL EFFORTS.

That the methods and conditions of the work of medical men, are, at present, in a stage of transition, is nothing new. There is a general feeling of unrest, of dissatisfaction, a groping, more or less blindly, sometimes, though, deliberate and purposeful, for greater development toward the ideals of medical practice that justly are found in the prevention of disease, making unnecessary the curing of it, because of its nonoccurrence.

It has been suggested that medical men returning from service in the army and navy, either in the home country or abroad, will not be satisfied to go back to the old routine work, to grope along in the accustomed grooves. New outlooks have been obtained; new ideas have been formed, and new ideals have arisen. One field of splendid activity, suitable for medical men, that has been opened up in recent years and is but partly developed, is well touched upon by a correspondent to *The Journal of the American Medical Association.* In the December 21 issue of this publication, on page 2093, Dr. J. F. C. Luhan, acting assistant surgeon of the U. S. Public Health Service, has put the problem so well that we can do no better than to reproduce his letter in full, as follows:

"Now is the time for American small municipalities to rise and demand health protection and to pay for it. Thousands of able, educated, experienced young medical officers from the Army, Navy, and Public Health Service will soon be discharged or will leave by resignation. Give these young, able men a chance to work as paid health-officers in each community of, say, 5,000 inhabitants and above. Pay them living-salaries and make them independent from the start. Place them in groups under older officers as supervisors, and let the U. S. Public Health Service do the general supervision and direction of the work, so that uniform and advanced procedure may be maintained. Establish suitable, perhaps small but, still, well-equipped laboratories, for conducting bacteriologic and biologic work, in some centrally located larger city, and place an efficient officer in charge. Build hospitals!

"Have on hand an adequate staff of nurses, not only to supervise the school-hygiene, but, also, to visit and instruct families in their homes and to detect overcrowding in the slums of the city. Make available self-sustaining, sanitary boarding-houses for single men and women; protect the children from the evil influences of star-boarders and the like. Segregate tuberculous subjects. Have a social-welfare committee regularly appointed and managed by Red-Cross staffs, these to teach to the foreign-born the American way of clean living and to see to it that pure air and, in winter, sufficient heat is supplied the needy, and that the children are properly clothed. Give the American public the benefit of the experience for which they had to pay so dearly. Americanize the foreigners, by paying more attention to their welfare."—*The American Journal of Clinical Medicine.*

INDUSTRIAL MEDICINE.

Manufacturing interests throughout the country are becoming impressed with the vital necessity of properly safeguarding the lives and health of employes, not only from the viewpoint of the new humanitarism, but from a sense of business foresight.

The demand upon the newly established Working-Conditions Service, of the U. S. Department of Labor, for industrial physicians and surgeons, has grown so rapidly that the Service has been compelled to establish a bureau of registry of physicians trained and skilled in this growing phase of medical and surgical specialization.

The new registry bureau is prepared to furnish industries with the names of skilled industrial medical advisers on request. The demands for competent medical directors for the factory department of hygiene are being met by the Service with an adequate list of physicians, all of whom have had experience and training in this particular function. Hundreds of such physicians are listed in the Government's registry bureau in Washington and hundreds are being added to the registration files.

In each instance, the Service satisfies itself of the training of the physicians before their names are allowed on the list. Thus, only those best qualified are listed and manufacturers have the advantage of knowing that, by availing themselves of this Service, their dispensary section will be in competent hands.

In addition to submitting names from the physicians' registry bureau, the Service is making investigations—only on request, however—of the general facilities for protecting the lives and health of employes. This work is carried on from branches of the Service now being established within easy reach of the nation's industrial centers. When such surveys are concluded, a report of the findings, with recommendations, is delivered to the responsible head of the particular industry. In this manner, industries are assured reliable and unbiased information from authorities who have studied industrial problems exhaustively, with expert training in hygiene, sanitation and related subjects.—Dr. A. J. Lanza, Chief, Division of Industrial Hygiene and Medicine, Washington, D. C., in *The American Journal of Clinical Medicine.*

REMARKS ON METHODS OF TEACHING MEDICINE AND SURGERY BY THE CINEMATOGRAPH.

I am presenting abstracts from my work in the Office of the Surgeon-General, illustrating the recent methods of teaching orthopedic surgery to medical and line officers and enlisted men in the Army.

As a supervising surgeon, it early became apparent to me, in lecturing at various cantonments or to any large body of students, that simply the verbal lecture, with the limitations of the human voice and the absence of illustrations or clinical material, was inadequate for attention and retention by the memory; charts and slides were impractical, so that the moving picture, on my initative and the hearty cooperation of Colonel Owen, was established in the Surgeon-General's Office and the other specialties soon availed of it.

In creating these lectures, I have had in mind not only military instruction, but adding teaching facilities available for use in our civil medical schools, upon request to the Surgeon-General.

It soon became apparent to Colonel Brackett, Director of our Division, and the rest of us engaged in this instruction, that it was expedient to go into the most rudimentary facts regarding locomotion, the prevention of avoidable disability and the recognized treatment of the more common affections of the lower extremities. Some thousands of feet of film I prepared on these subjects alone.

After completing our task of instruction in preparation for the over-sea duty, our attention was next directed to the demonstration of methods for the immediate care of the wounded.

Finally, our efforts have been to portray in detail the technic of surgical reconstruction in tendon, muscle, bone work, etc.

The moving picture film will bring the student into closer touch with clinical material, certain symptoms such as neuroses, epileptic seizures, tics, etc., than are ofttimes available in hospital routine instruction and difficult to describe, but the so-called "close-ups," as shown by "the movies," will bring the student intimately in contact with the operating table, which is often not possible from an amphitheater seat. The details of arterial, nerve or intestinal anastomosis, bone grafting, application of mechanical principles of direction and technic in tendon and muscle transplantations for deformities and application of deep sutures are brought home and fixed in the memory as by no other means of instruction, save actual experience later in the procedures themselves.

This mode of instruction, in conjunction with the didactic lecture, has been found to yield a higher average mark per student than any other mode of teaching.

The moving picture possesses the advantage over the lantern slide in that the component parts of a lecture cannot be disarranged, broken or lost, nevertheless inserts or additions can be made, almost unlimited positives can be printed from the original negative at the same cost as slides, and films are lighter and more easily transported than slides. A simple modern attachment is also now available for stopping the moving picture machine at any point without burning the film, when it is desired to emphasize some special picture, thereby putting it in a less costly class than the slide, which has not heretofore obtained and was an objection.

By means of the moving picture in comparative teaching of the future, the medical student will also be able to see the modifications of several surgeons in performing a given procedure; thus a class may see the technic employed at the clinics of this and other countries at the same sitting and appreciate the value of the points made in each. It is thus very broadening in its educational possibilities. Or a clinical professor, who wishes to illustrate his systematic course of lectures, but is lacking in clinical material, can resort to a moving picture record of the desired cases, symptoms, signs, operation, etc.

The films of the Army Medical Museum will be available to teachers in the army and medical schools and the profession, just as the books in the Surgeon-General's Library are for study or reference, provided transportation, safe handling and return in good order or replacement are guaranteed.

It is hoped that the profession will co-operate in giving films to this department or allow it to make copies of existing negatives.

It has been brought to the attention of the Surgeon-General's Office that certain commercial film companies, having made medical films, wished to

charge this department for copies or the profession for exhibition purpose on a commercial basis. Physicians could easily and should specify, when approached to demonstrate a new original procedure for a "movie" company, that a copy be sent to the Surgeon-General for the profession at large, before permitting it to be made.

Many facts in the prevention of acute foot strain, the so-called flat-foot, and the explanation of the large number of torn ligaments at the knee and ankle in trench jumping at the cantonments have been explained by this department and moving pictures prepared to demonstrate how to jump correctly and present such disabilities. Also as a result of this film, instruction in standard foot examinations, shoe fitting, correct balance and marching, to be used in the Army, have become or will shortly be issued by the General Staff as general orders, etc.

By diagrammatic or "stop-motion" line-drawing or "animated drawings" as they are called, a most valuable instructive preliminary is at hand to precede a picture of an actual operative procedure. Demonstration of details in brace construction, fitting and therapy, and especially in recording, charting, measuring departures from normal gait, this new national aid to orthopedic surgery is an added asset, divested of the costly obstacle which has prevented its addition as a routine in the teaching of standard methods by many heretofore.

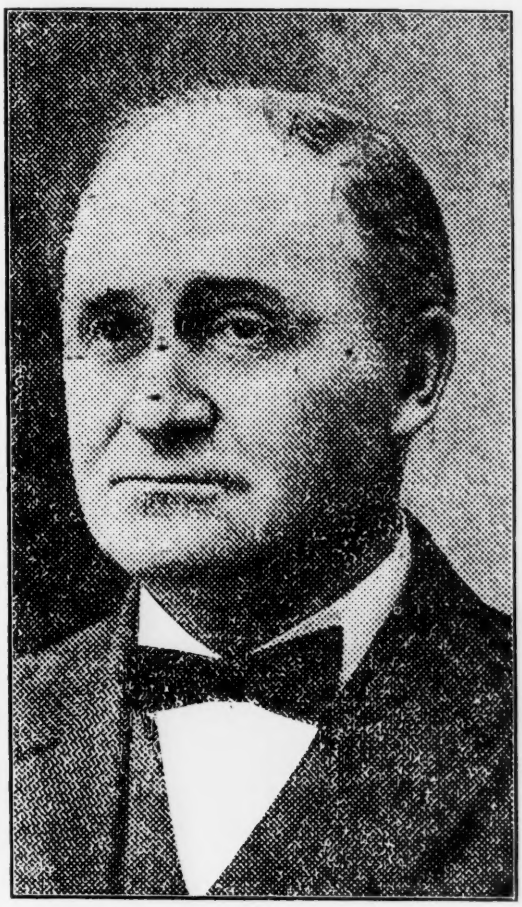
My plan in teaching my students any given operative procedure is to show them the "animated drawing" first, then a "close-up" of an actual operation and other surgeons' technic in that condition, and finally the operation itself, on the living subject, with illustrative cases before and after the operation.—Major R. Tunstall Taylor, U. S. A., Office of the Surgeon-General, Washington, D. C., in *American Journal of Surgery.*

On authority of the Office of the Surgeon General of the Army, it is said that there may be less than fifty American soldiers who suffered total blindness from wounds received in action. This is considered a remarkable record for the number of men engaged, and the intensity of the fighting in the sectors where Americans were engaged

The study of industrial fatigue, as carried on in British munition factories during the war, led to results of great interest to both employers and employes. We are glad to learn that the British are now going to extend these investigations to industrial establishments generally, and have accordingly established an Industrial Fatigue Research Board, under the Department of Scientific and Industrial Research and the Medical Research Committee. The duties of the board, as reported in *Nature,* will be to initiate, organize and promote, by research, grants or otherwise, investigations in different industries with the view of finding the most favorable hours of labor, spells of work, rest pauses, etc. The chairman of the board is Prof. C. S. Sherrington, and headquarters have been established at 15 Great George St., Westminster, S. W. 1, London.

Deaths

Dr. Francis R. Blanchard of Eaton Rapids died Tuesday evening, March 4th. Doctor Blanchard was 55 years of age and was born in Farmington, Pa. He graduated from the medicine and surgery course of the University of Michigan in 1891 with Doctor C. A. Stimson who later became his partner. He had prac-



Dr. Francis R. Blanchard.

ticed in Lakeview for twenty-one years and about six years ago moved to Eaton Rapids.

About six months ago with Doctor C. A. Stimson and Mrs. Harriet Chapman Brunk, a graduate nurse, he undertook the erection and operation of the Harriet Chapman Hospital at Eaton Rapids, which was just recently opened, Doctors Blanchard and Stimson having offices there.

Doctor Blanchard is survived by one sister, Mrs. Mary Forsythe, of Eaton Rapids, and three brothers. He was a member of the Medical Reserve Corps during the war, and was an active member of the Eaton County Medical Society, having been President in 1918.

The deaths of Doctor C. H. Winton of Kalamazoo, and Doctor Homer Gordon of Lansing, not members of the State Society have been reported.

State News Notes

COLLECTIONS.

Physicians' Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

PRACTICE

Central Michigan town of 700. A No. 1 school, Baptist and Methodist churches. Very fine farming section. State roads. Average better than eleven months yearly with machine. Good fees. Collected $1,800 last year. Books open for inspection. All you can do from start.

Fine modern ten room home, furnace heat, electric lights, hot and cold water. Garage. Good three room office. For quick sale $3,500. Terms one-half down balance to suit. Investigate. Reason: Special work. Address c-o State Medical Journal.

$100 PRIZE.

The American Association of Industrial Physicians and Surgeons offers a prize of $100 for the best thesis on any subject related to Industrial Medicine and Surgery by any undergraduate medical student of the United States.

The thesis must not contain more than 5,000 words.

All theses must be in the hands of the Secretary of the Association by May 10th, 1919.

Dr. Frances D. Patterson, Secretary,
Department of Labor and Industry, Third and North Streets, Harrisburg, Pa.

THE STUDENTS' LIBRARY ASSOCIATION of the Middlesex College of Medicine and Surgery solicits donations of Medical and Scientific libraries, Medical books, bound and unbound volumes of back numbers of Medical and Scientific Magazines, and funds for current American and foreign Medical Journals. Jennie Hraba, Class '21, Association Secretary University of Massachusetts School for Medicine, East Cambridge, Mass.

The women of Michigan in the fifth government loan campaign will work under a new leader. Mrs. G. Edgar Allen of Detroit has been appointed state chairman of women by the national woman's Liberty Loan committee.

Mrs. Allen takes the place made vacant by the resignation of Mrs. Delphine Dodge Ashbaugh of Detroit. Mrs. Asbaugh was state chairman in the preceding loans and was forced to resign by reason of ill health. Mrs. Allen, her successor, was city chairman of Detroit in the Fourth loan. She will make her headquarters during the fifth campaign in her home city.

Mrs. Caroline Brink of Grand Rapids, who has been state vice chairman of women in the preceding loan drives, has agreed to continue in that office during the fifth campaign.

The Wayne County Medical Society held a Subscription Dinner at the Wayne County Medical Building Saturday, March 8, 1919, in honor of Colonel Angus McLean, Colonel W. L. Babcock, Lt. Colonel P. M. Hickey, Lt. Colonel Burt R. Shurly, Lieut. Colonel Walter J. Vaughn, Major F. B. Walker, Major F. C. Kidner, Captain James D. Mathews, Captain Fred L. Johnson.

Dr. Leo C. Donnelly was married to Mrs. Emma K. Beardslee, widow of Dr. Lynn Beardslee, daughter of Mr. and Mrs. Jas. S. Keightley, March 5, 1919. Their honeymoon will be spent at the Mayo Clinic, Department of Orthopedic Surgery. They have made their home at 90 Elmhurst, Highland Park.

A recent letter from Dr. R. A. Morter, formerly of the State Hospital is now with the Field Hospital of the 80th Division, located in Ancy LeFranc, France. He states that the work is much lighter than formerly.

Doctor M. E. Danforth of Stanton, Mich., connected with the 318th field hospital unit, in the 80th division and who was gassed in the Argonne action about September 20, is expected home very shortly.

Doctor W. P. Stowe of Traverse City has accepted a position on the medical staff of the hospital owned by the Cleveland Cliffs Mining Company at Ishpeming.

Forty-eight of the fifty-three students graduated from the University Hospital at Ann Arbor on March 30th will take interneships and two others will teach in medical schools.

Dr. C. A. Youngs, son of Dr. A. S. Youngs, of Kalamazoo, has been appointed City Physician for the city of Kalamazoo, and assumed his duties on March 1st.

Word received from France tells us that Major R. F. Balch of Kalamazoo is located at Bordeaux and that his work is Plastic Surgery of the Jaw.

Major Dan H. Eaton has returned from France, and received his honorable discharge, and has opened an office at 1001 and 1002 Hanselman Bldg., Kalamazoo.

Major Richard R. Smith of Grand Rapids, Mich., commander of hospital unit Q at Bordeaux, has been promoted to Lieut. Colonel.

Doctor Cyril A. Youngs, as Kalamazoo's first full-time physician, will have charge of the bacteriological laboratory.

The slayer of Dr. I. M. J. Hotvedt of Muskegon, Mich., was sentenced to a life term in Jackson prison.

Doctor E. W. May of Detroit has received his honorable discharge from the Medical Corps and has resumed his practice in Detroit, Mich.

The Detroit College of Medicine and Surgery graduated 29 members of the class of 1919 on February 18th.

Lieutenants Currier, Deaver, and Wells of Grand Rapids have been promoted to Captains.

Dr. G. L. Bliss of Kalamazoo has sufficiently recovered to resume his practice in Pediatrics.

Word received from France indicates that Capt. Ward E. Collins will soon return to America.

Dr. G. T. Britton, Kalamazoo, who has been ill has recovered and resumed his practice.

COUNTY SOCIETY NEWS

It is the Editor's desire to have this department of the Journal contain the report of every meeting that is held by a Local Society. County Secretaries are urged to send in these reports promptly

HILLSDALE COUNTY

The Annual Meeting of the Hillsdale County Medical Society scheduled for last December was postponed on account of the influenza epidemic. At the meeting held on March 8, 1919, it was voted to continue the present officers of the Society for the ensuing year:

President—Dr. O. G. McFarland, Montgomery.
Vice-President—Dr. S. B. Frankhauser, Hillsdale.
Secretary-Treasurer—Dr. D. W. Fenton, Reading.

IONIA COUNTY

The Ionia County Medical Society elected the following officers for the ensuing year:

President—Dr. A. B. Penton, Smyrna.
Vice-President—Dr. M. O. Blakeslee, Ionia.
Secretary-Treasurer—Dr. R. R. Whitten, Ionia.

Delegates to the State Medical Meeting—Dr. H. Maynard, Ionia; Dr. G. A. Stanton, Belding.

KALAMAZOO ACADEMY OF MEDICINE

The regular meeting of the Kalamazoo Academy of Medicine occurred Tuesday, February 25th, 1919.

Dr. N. D. Shaw, of Hartford, Mich., was elected to membership.

The scientific program for the afternoon was as follows:

1. Some Special Points in the Treatment of Fractures Learned From Personal Experience. (Illustrated with lantern slides.)
   Major P. B. Magnuson, Chicago.
2. The Influenza Epidemic as Observed at Camp Hospital No. 52.
   Major Dan H. Eaton, Kalamazoo.

SHIAWASSEE COUNTY

At the annual meeting of the Shiawassee County Medical Society the following officers were elected:

President—Dr. R. C. Mahaney, Owosso.
Vice-President—Dr. C. A. Crane, Corunna.
Secretary-Treasurer—Dr. W. E. Ward, Owosso.
Delegate to State Medical Society—Dr. C. McCormick, Owosso.
Medico-Legal Representative—Dr. F. L. Rice,

OUR HONOR ROLL.

County Secretaries are requested to report the names of all members in the Service.

Allegan County.

Dr. Elmer D. Osmun, Allegan; Dr. Robert P. Stark, Allegan; Dr. Howard W. Stuch, Allegan; Dr. Orrin D. Hudnutt, Otsego; Dr. Willard R. Vaughan, Plainwell; Dr. Robert J. Walker, Saugatuck.

Alpena County.

Dr. Clarence M. Williams, Alpena.

Antrim County.

Dr. Bernard J. Beuker, Atwood; Dr. Edward W. Vis, Central Lake; Dr. Versile M. Gates, Eastport; Dr. Louis N. Yerkes, Elk Rapids; Dr. Worth W. Walton, Mancelona.

Baraga County.

Dr. Frank F. Marshall, Pequaming.

Barry County.

Dr. Maurice J. Cross, Delton; Dr. Birge C. Swift, Middleville.

Bay County.

Dr. F. S. Baird, Bay City; Dr. F. W. Brown, Bay City; Dr. S. L. Ballard, Auburn; Dr. C. V. Crane, Tawas City; Dr. V. H. Dumond, Bay City; Dr. E. Goodwin, Bay City; Dr. E. S. Huckin, Bay City; Dr. H. P. Lawrence, Pinconning; Dr. R. C. Perkins, Bay City; Dr. F. H. Randall, Bay City; Dr. R. E. Scrafford, Bay City; Dr. M. R. Slattery, Bay City; Dr. P. R. Urmston, Bay City.

Benzie County.

Dr. C. P. Doyle, Frankfort.

Berrien County.

Dr. Louis A. King, Baroda; Dr. Myron G. Becker, Jr., Benton Harbor; Dr. Carl A. Mitchell, Benton Harbor; Dr. Warren P. Morrill, Benton Harbor; Dr. Burton L. Stevenson, Benton Harbor; Dr. David Littlejohn, Bridgeman; Dr. Spencre Van Barnum, Coloma.

Branch County.

Dr. W. J. Bien, Union City; Dr. W. A. Griffith, Coldwater.

Calhoun County.

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*Died in France, November 28th, 1918.

Cass County.

Dr. Edgar C. Dunning, Cassopolis; Dr. Chas. M. Harmon, Cassopolis; Dr. James H. Kelsey, Cassopolis; Dr. Walter S. Sharpe, Dowagiac; Dr. Ralph P. Jones, Marcellus.

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Gardner, Alma; Dr. C. D. Pullen, Mt. Pleasant; Dr. A. R. Mussell, Clare; Dr. B. J. Sanford, Clare; Dr. T. P. Vanderzalm, Blanchard; Dr. M. C. Hubbard, Vestaburg.

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*Killed in France, October 26, 1918.

Kalamazoo Academy of Medicine.

Dr. R. U. Adams, Kalamazoo; Dr. Ralph E. Balch, Kalamazoo; Dr. W. Collins, Kalamazoo; Dr. O. H. Clark, Kalamazoo; Dr. L. J. Crum, Kalamazoo, Dr. A. E. Henwood, Kalamazoo; Dr. W. H. Kenzie, Richland; Dr. R. G. Leland, Kalamazoo; Dr. R. A. Morter, Kalamazoo; Dr. N. W. Pinto, Kalamazoo; Dr. R. E. Weeks, Augusta; Dr. G. F. Willey, Kalamazoo; Dr. F. S. Collier, Vicksburg; Dr. D. H. Eaton, Kalamazoo; Dr. J. F. Berry, Kalamazoo; Dr. D. W. Crankshaw, Lawrence; Dr. N. D. Murphy, Bangor; Dr. John Stewart, Hartford; Dr. H. W. Wiley, South Haven; Dr. L. E. Wescott, Gobleville; Dr. W. R. Vaughn, Plainwell; Dr. O. D. Hudnutt, Otsego; Dr. E. D. Osmun, Allegan; Dr. R. P. Stark, Allegan, Dr. H. Stuck, Allegan; Dr. H. Whitney, Otsego; Dr. W. A. Singleton, Hickory Corners.

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son; Dr. George W. Wilson; Dr. Robert A. Wollenberg; Dr. Grover C. Wood; Dr. Harry B. Yoh; Dr. John C. Young, Detroit. Joseph H. Chance, Eloise; Dr. Robert H. Carmichael, Hamtramck; Dr. Martin W. Caveney, Highland Park; Dr. Geo. S. Foden, Highland Park; Dr Richard H. Juers, Highland Park; Dr. Thomas B. Henry, Northville; Dr. Lewis N. Tupper, Redford; Dr. Roy Du B. Tupper, Redford; Dr. Howard B. Kinyon. Trenton; Dr. Romeo H. Earle, Wayne; Dr. Glen L. Coan, Wyandotte; Dr. Wm. H. Homer, Wyandotte; Dr. Joseph G. Knapp, Wyandotte; Dr. John N. Bell, Detroit; Dr. H. G. Palmer, Detroit.

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Book Reviews

ABSTRACTS OF WAR SURGERY. An Abstract of the War Literature of General Surgery that has been published since the Declaration of War in 1914. Prepared by the Division of Surgery, Surgeon General's Office. St. Louis, Mo. C. V. Mosby Co., 1918. $4.00 cloth.

This is a compilation of the work done by the English, French and Italian Surgeons before we were in active service and a renewal of what had been done with our additional force. These abstracts have been compiled from the various surgical Journals and embody the surgeries of the front line trenches and all forms of wound infections, and are grouped under the following headings: General topics, wound infection and treatment, tetanus, gas gangrene, abdomen, chest, cardiovascular surgery, joints, fractures, burns, anesthesia in warfare, trench-foot, foreign bodies, peripheral nerve injuries, and jaws and face. The chapter on injuries of the jaws and face and their early care may easily be transferred to such injuries of the face and jaws as occurring in factories, and by following the teaching there given better results will be obtained than by following some of the present methods.

QUARTERLY MEDICAL CLINICS. A Series of Consecutive Clinical Demonstrations and Lectures, by Frank Smithies, M.D., at Augustana Hospital, Chicago. Volume I, Number I. January, 1919. Published by the Medicine and Surgery Publishing Company, Inc., St. Louis, Mo. Annual Subscription; $5.00 paper, $8.00 cloth. Single copies, $1.50 paper, $2.25 cloth.

Frank Smithies, M.D., F.A.C.P., Associate Professor of Medicine, School of Medicine, University of Illinois; Gastro-Enterologist to Augustana Hospital; Medical Consultant to U. S. Marine Hospital; Formerly Gastro-Interologist at Mayo Clinic; Fellow of the American Gastro-Enterological Association, etc. September-December, 1918.

These clinics present a series of case demonstrations and lectures and each case presents a definite subject of its own giving the present and past history, examinations, discussions, and treatment. By a careful review of all cases given we are strongly reminded that we often loose sight of important or minor details in our hurried methods and somewhat grand stand diagnosis and again our smaller towns and cities are not all equipped for such care. This makes it all the more important that these clinics should be read and studied for they are a valuable asset and will prove useful to all practitioners.

A MANUAL OF DISEASES OF THE NOSE, THROAT AND EAR. By E. B. Gleason, M.D., Professor of Otology in the Medico-Chirurgical College Graduate School, University of Pennsylvania. Fourth Edition, thoroughly revised. 12mo of 616 pages, 212 illustrations. Philadelphia and London; W. B. Saunders Company, 1918. Cloth, $3.00 net.

This book has been revised a number of times and it has reached its fourth edition which in itself speaks favorable. The last edition exceeds all others. There is a train of conservatism running all through the book. The student and busy practitioner are often confounded to make a choice of so many recommendations; herein a few are given which have proven to be the most useful.

It is plain and clearly written especially the article on labyrinthine difficulties which is so clearly defined that many conditions are made plain. The teaching

of watchful waiting is followed by better results than the so-called radical operative work which does not mean radical cures.

The reviewer congratulates the author.

ROENTGENOTHERAPY, by Albert F. Tyler, B.Sc., M.D., Professor of Clinical Roentgenology John A. Creighton Medical College; Attending Roentgenologist St. Joseph's Hospital, Bishop Clarkson Memorial Hospital, Ford Hospital, Immanuel Hospital Douglas County Hospital and Lord Lister Hospital, Omaha, Nebraska; Member American Roentgen Ray Society; Fellow American Medical Association, etc. 162 pages with 111 illustrations. St. Louis, Mo. C. V. Mosby Company, 1918.

Because of the dearth of reliable texts available in "Roentgenotherapy" this book fills a decided want. It gives especially to the beginner a text in simple terms which can be readily grasped. Detailed technic for the treatment of different conditions has been described and cases capiously illustrated. The material in the book gives evidence of having been the result of a wide and long experience and the scrutiny of all the literature on this subject. The book is of especial value because of lack of over enthusiasm. All deductions are carefully backed up with conservatism which is typical of the author, as we know him. The important points are illustrated, the unusual cures are emphasized by convincing case photographs. The reference literature is as extensive as possible. The book is very free from general statements and all conclusions are well balanced. No literature on this subject has more "Pfhaler" like carefullness or well weighed conservatism. Such a book should be in the hands of surgeons and medical consultants to bring them up to the true possibilities of Roentgentherapy.

ULTRA VIOLET RAYS IN MODERN DERMATOLOGY, by Ralph Bernstein, Philadelphia, Pa. Published by Achey & Gorrecht, 5-9 North Queen St., Lancaster, Penn.

It is admitted that we need more literature on the Ultra Violet Radiotherapy, and this book may be an addition of value provided the reader has sufficient knowledge in light therapy to balance some of the over enthusiasm and general statements of the author. The book lacks in proved case histories, it lacks in convincing illustrations, it lacks in consensus of opinion. It is unfortunate in these times when things are balanced up by all authorities on the subject that so much weight should be given to "my experience, and to my private practice and my ideas" uninfluenced by other ideas. The literature referred to is meager. The authors quoted lack some of the authors supposed to be best informed on the subject and a great deal of emphasis is laid upon manufacturers patented products. The doctor with his vast experience could have easily used his general statements in regard to apparatus and balanced up the scientific conclusions by reference to other literature and it is to be regretted that the book was not published in that spirit.

Benzyl Alcohol.—While experience alone will tell whether or not the local anesthetic benzyl alcohol or phenmethylol will come up to the expectations of the discoverer of its action, it was deemed of sufficient promise by the Council on Pharmacy and Chemistry to warrant its admission to New and Nonofficial Remedies (*Jour. A.M.A.*, Feb. 22, 1919, p. 594).

Miscellany

PROPAGANDA FOR REFORM.

B. Iodine and B. Oleum Iodine.—The Council on Pharmacy and Chemistry reports that while B. Iodine (The B. Iodine Chemical Company) is said to be "Nitrogen Hydrate of Iodin" and B. Oleum Iodine a 5 per cent. solution thereof, the examination made in the A. M. A. Chemical Laboratory indicates that the first is a simple mixture of iodin and ammonium iodid, and the second a solution of iodin in liquid petrolatum. The Council declared these preparations inadmissible to New and Nonofficial Remedies because: 1. The composition of B. Iodine is incorrectly declared. B. Iodine is not a newly discovered iodin compound, but a mixture of iodin and ammonium iodid. B. Oleum Iodine is not a 5 per cent. solution of B. Iodine as suggested by the statement on the label and in the advertising, but an 0.85 per cent. solution of iodin in liquid petrolatum. 2. Since the solution of B. Iodine in water will have the properties of other solutions of iodin made by the aid of iodid, the therapeutic claim made for it is unwarranted. 3. The names "B. Iodine" and "B. Oleum Iodine" are not descriptive of the pharmaceutical mixtures to which they are applied. 4. The preparations are unessential modifications of established articles. The first has no advantage over tincture of iodin or compound solution of iodin, and the second no advantage over extemporaneous solutions of iodin in liquid petrolatum. (*Jour. A. M. A.*, Feb. 1, 1919, p. 365).

Misbranded Nostrums.—The following nostrums were declared misbranded under the Federal Food and Drugs Act because of the false, fraudulent or misleading claims made for them. M. I. S. T. (Murray's Infallible System Tonic); M. I. S. T. No. 2, Nerve Tonic; Imperial Remedy; "Japanese Wild Cherry Cough Syrup;" "Japanese Herb Laxative Compound;" Dr. E. E. Burnside's Purifico No. 1; Dr. E. E. Burnside's Purifico No. 2; Dr. E. E. Burnside's Purifico No. 3; Emerald Oil; Bristol's Sarsaparilla; Dr. Belding's Six Prairie Herbs; Dr. Carter's K. and B. Tea; "Brazilian Balm;" "Renal Tea;" Las-I-Go for Superb Manhood; Blood Tabs; Dr. Miles Restorative Nervine; Kilmer's Swamp Root; Homenta; Hinkley's Bone Liniment; Kopp's Baby's Friend; Kopp's Kidney Pills; Reuter's Syrup; Garfield Tea; Di-Col-Q; Sloan's Liniment; Bannerman's Intravenous Solution; Cummings Blood Remedy; and Giles' Germicide (*Jour. A.M.A.*, Feb. 8, 1919, p. 439).

Cerelene not Admitted to N. N. R.—Cerelene, a paraffin preparation for the treatment of burns, was submitted to the Council on Pharmacy and Chemistry by the Holliday Laboratories with the statement that it was composed of 84 per cent. paraffin, 15 per cent. myricyl palmitate stated to be purified beeswax, and 1 per cent. purified elemi gum, to which are added oil of eucalyptus, 2 per cent., and betanaphthol, 0.25 per cent. It was stated that on "special order" Cerelene has been made containing oil of eucalyptus and resorcin, oil of eucalyptus and picric acid, and picric acid alone. The Council declared Cerelene inadmissible to New and Non-

official Remedies because there was no evidence to show that this preparation had any advantage over simple paraffin of low melting point (Paraffin for Films—N. N. R. because there is no proof that the medicinal ingredients leave the wax when it is used, and because the constituent "myricyl palmitate" has not been accepted for New and Nonofficial Remedies. (*Jour. A.M.A.*, Feb. 15, 1919, p. 513).

Beef, Wine and Iron.—So long as one of the largest mail order houses in this country continues to sell *Vinum Carnis et Ferri*, N. F. in gallon jugs, the drought from prohibition legislation may not be as noticeable as it might otherwise. Seriously however, is it not about time for the professions of medicine and pharmacy to heave into the discard such utterly unscientific combinations as "Beef, Wine and Iron" (*Jour. A.M.A.*, Feb. 15, 1919, p. 498)?

Misbranded Nostrums.—The following nostrums were declared misbranded under the Federal Food and Drugs Act because of the false, fraudulent or misleading claims made for them: Hall's "Texas Wonder;" King's Liver and Kidney Alterative and Blood Cleanser; En-Ar-Co Oil; Lindsey's Improved Blood Searcher; White Eagle's Indian Oil Liniment; Aqua Nova Vita; Brown's New Consumption Remedy; Akoz Ointment; Akoz Rectal Suppositories; Akoz Powder; Akoz Dusting Powder; Akoz Plaster; Akoz Compound; Fenner's Kidney and Backache Remedy, and Wine of Chenstohow (*Jour. A.M.A.*, Feb. 22, 1919, p. 591).

Styptics.—Ordinary bleeding has a strong tendency to stop spontaneously with the formation of a clot, so that the benefit attributed to a drug that has been used as a hemostatic cannot easily be evaluated. Evidence of the current confusion of cause and effect in relation to local hemostatics has been furnished by P. J. Hanzlik. In general he finds that the local application of vasoconstrictor and astringent agents diminishes or arrests local hemorrhage, while vasodilator and irritating agents (without astringent action) increase local bleeding. The value of the newer thromboplastic agents of the kephalin or tissue extract type is considered as still uncertain. Epinephrin remains as the most efficient and desirable hemostatic agent. Tyramin and pituitary extracts were found efficient, and, unlike epinephrin, they do not increase bleeding later. Astringents were found variably effective, ferric chlorid and tannin standing highest, while alum was disappointing. The vaunted cotarnin salts (stypticin and styptol), antipyrin and emetin were found to increase bleeding on local application (*Jour. A.M.A.*, Feb. 22, 1919, p. 577).

Wildroot Dandruff and Eczema Cure.—Dr. Harvey W. Wiley, in his book "1001 Tests," thus characterizes this preparation: "Contains arsenic, and some phenolic body, probably resorcin; perfumed and colored. The trace of alkaloidal material present was too small for identification. Contains 40 per cent. of alcohol, as declared, and less than one-half of 1 per cent. of nonvolatile matter. Claims that it is an herb compound and a positive remedy for eczema and dandruff obviously untenable" (*Jour. A.M.A.*, Feb. 22, 1919, p. 594)).

NEW AND NONOFFICIAL REMEDIES.

Sulphoichthyolate Preparations.—Preparations containing as their essential constituents salts or compounds of a mixture of acids containing sulphur and designated by the group name "sulphoichthyolic acid" are manufactured from certain bituminous shales. Sulphoichthyolic acid is characterized by a high sulphur content, the sulphur existing largely in the form of sulphonates, sulphones and sulphides. The ammonium compound of this sulphoichthyolic acid—first introduced as ichthyol—has been used extensively. The current estimate of the therapeutic effects of sulphoichthyolate preparations is based almost entirely on the use of ichthyol. As it is not known to what constituent or constituents of ichthyol such effects as it may have are due, the actions of ichthyol cannot be transferred to similar preparations which differ from ichthyol in their composition. The use of sulphoichthyolate preparations is still largely empirical, and the evidence for the use unsatisfactory.

Biologically Reactive Food Proteins.—The purified and concentrated proteins of foods. These protein products are used in cases in which persons show a peculiar hypersensitiveness or idiosyncrasy to certain articles of the dietary, both to determine to which food it is due and to immunize the patient against the effects of the food. The test for sensitiveness is made by scarifying the skin and rubbing in the protein to be tested, either dry or in solution. When the production of an urticarial wheal identifies the protein to which a patient is sensitive, the patient is desensitized by administration of gradually increasing amounts of the offending food of the isolated food protein itself.

Cow's Milk Allergens-Squibb.—A powder representing all the soluble proteins obtained from cow's milk. It is a fine, white, odorless powder, somewhat soluble in water and physiological sodium chloride solution. Cow's milk allergens-Squibb has the actions and uses of Biologically Reactive Food Proteins. E. R. Squibb and Sons, New York.

During February the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Nonofficial Remedies:

Non-proprietary Articles:
- Biologically Reactive Food Proteins.

Merck and Co.:
- Tannin Albuminate Exsiccated-Merck.

E. R. Squibb and Sons:
- Cow's Milk Allergens-Squibb.
- Egg Allergens-Squibb.
- Wheat Allergens-Squibb.

Takamine Laboratory:
- Neoarsaminol, 0.15 Gm. Tubes.
- Neoarsaminol, 0.3 Gm. Tubes.
- Neoarsaminol, 0.45 Gm. Tubes.
- Neoarsaminol, 0.6 Gm. Tubes.
- Neoarsaminol, 0.75 Gm. Tubes.
- Neoarsaminol, 0.9 Gm. Tubes.

There is no duty we so much underrate, as the duty of being happy—**Stevenson.**

AN APPEAL FOR NATIONAL MEDICAL RECIPROCITY.

In the interest of the morale of the medical officers who have been left in the service since the signing of the Armistice and as an act of simple justice to all medical men who have abandoned their work in civil life to serve in the Army during the war, an effort should be made through the Governors of the several states or otherwise to secure for the ones who are graduates of reputable medical colleges and who have made good records the right to practice in any State in the Union without examinations. This suggestion is supported by the following:

(A) The object of all Medical Practice Laws is to protect the public from ignorant and vicious Practitioners of Medicine. No State Law regulating the practice of Medicine is passed on any other theory, nor for any other purpose. The graduates of reputable medical schools selected for Army Service and especially those who have made good records in the Army meet all of the requirements demanded by all state laws governing the Practice of Medicine.

(B) Practically all states grant to medical men in the Army and Navy the right to practice in civil communities while in the service. If these men meet the requirements while in the Army and Navy, they certainly meet the requirements when retired to civil life.

(C) Many medical men have been made proficient in special branches of medicine during the war and should be given opportunity to select new locations in which to begin practice as specialists.

(D) Some men have in addition to the loss of their civil practices been broken in health and will find it necessary to begin work again in different climates and environments.

(E) Many having lost their practices at home will find it easier to begin life all over again in new localities. This is particularly true of those who have been much reduced in financial standing. They should be spared the humiliation of having to begin at the bottom and to compete on unequal terms with old competitors who have profited by their absence from home.

(F) The last men to be released from the service will be the most in need of encouragement and help in every possible way. During the war they were regarded by their patients as patriotic men making sacrifices during a great national emergency. Now that the war is over they are thought to be remaining in the army as a matter of choice and are therefore more often censured than praised. The men first out of service will very naturally get the best of whatever practice is recovered by the returning medical officers.

This appeal should be given very careful consideration by the Registration Board. The justice of the same is recognized.

While reciprocity exists between a number of the states, yet those who have not appeared before the examining board and were practicing medicine prior to their entrance into the war could not gain this reciprocity. Some method should be adopted whereby this appeal could be handled in a proper manner and granted.

DISTINGUISHED SERVICE AWARDS.

The commander in chief in the name of the President has awarded the distinguished service cross to the following named officers:

John F. Doudna, Lieut., M. C., U. S. Army, 362d Infantry, Lake City, Mich. For extraordinary heroism in action. This officer was under constant shell fire with his battalion for 17 days, and though he had been painfully wounded by a machine-gun bullett, he remained at his post, rendering first aid to the wounded night and day, performing the duties of two other medical officers who had been incapacitated, in addition to his own. Lieut. Doudna's utter disregard for personal danger and complete devotion to duty made possible the rapid evacuation of the wounded, thus materially keeping up the morale of the combat troops, and alleviating the suffering of the wounded.

Leo J. Crum, Lieut., M. C., U. S. Army, 126th Infantry, Kalamazoo, Mich. For extraordinary heroism in action near Cierges, France, July 31 and August 1, 1918. During the attack against Cierges by his regiment he worked continuously and heroically under fire to treat and evacuate the wounded. When the house in which his first-aid station was located was struck by an enemy shell he safely evacuated all of his patients and promptly established another aid station near the front. His untiring efforts and personal bravery saved the lives of many wounded and suffering men and were a source of inspiration to the entire command.

The Council of National Defense authorizes the following:

The Volunteer Medical Service Corps was organized early in 1918 to serve the Government during the emergency of war. As this emergency has ceased to exist, active membership in the Corps is no longer solicited. However, the survey initiated by this organization last year has proved of such value as a source of information concerning the individual members of the medical profession that the Surgeons General of the Army, Navy and Public Health have requested the Council of National Defense to complete it so as to include every doctor in the country, in order that a permanent record of the profession may at all times be available for reference in future emergencies. Upon their completion, the records will be transferred to the Surgeon General's Library where they will be kept up to date by a force assigned for the purpose, and be accessible to all government bureaus.

Every physician is requested to co-operate with the Council of National Defense in making this record complete by returning at once the questionnaire received or by writing to the Medical Section of the Council of National Defense, Washington, D. C., and requesting that a blank be sent him if through an oversight he did not receive one.

THE HARRISON ACT.

As Amended by the new War Revenue Act, will be mailed postpaid to any druggist, physician, dentist or veterinarian who will send a postal request therefor to "Mailing Department, Parke, Davis & Co., Detroit, Mich." Please observe directions strictly.

WILD LIFE RESERVATIONS IN MICHIGAN.

Mr. and Mrs. E. K. Warren, of Three Oaks, Mich., have just set aside as wild life preserves two tracts of land in Michigan. One is an area of 300 acres, near Three Oaks, consisting partly of virgin forest of beech and maple; the other, of 250 acres, is in the sand dune region on the shore of Lake Michigan, north of Sawyer, Berrien County. These preserves are incorporated in the "Edward K. Warren Foundation," which also includes the Chamberlain Memorial Museum at Three Oaks, opened in 1916. Both tracts have been set aside so that future generations may have an example of the primitive floral and faunal conditions of Southern Michigan, and as a place for carrying out various studies in natural history. The University of Michigan has been asked to make a detailed survey of the reservations and it is planned to extend this survey over an indenfiite number of years. Field laboratories will be provided for this purpose by the Foundation.

Two fine new ships of the Emergency Fleet Corporation will soon be honoring the State of Michigan by carrying to the commercial ports of the world the names, "City of Flint," and "City of Detroit." These are the names selected by the two Michigan cities awarded the prize for the greatest percentage of subscribers in the Fourth Liberty Loan. The government set aside two ships for this purpose for each of the five states in the Chicago federal reserve district. Arrangements are being now completed for the christening of the two honor ships awarded Michigan.

As recently announced Flint carried off first place among cities of more than 10,000 people in the Fourth Loan competition by securing bond subscriptions in that campaign from 73.26 per cent. of her population, based on the 1910 census. Detroit was second among the large cities with a 55 per cent. subscription. Grand Rapids came in third with 53.99 per cent. of her inhabitants on record, Lansing was fourth with 51.9 per cent., Adrian was fifth with 32.86 per cent, Bay City sixth with 32 per cent. and Saginaw seventh, with 29.93 per cent. Of the cities under the 10,000 population limit, Alma and East Lansing were found to have secured the highest percentage of subscriptions. Alma had 80.8 and East Lansing 61 per cent. These cities would have been awarded the honor of naming battle tanks, but as the production of tanks was stopped by the signing of the armistice it is now hoped to secure permission to have small merchant ships named after the two winners.

Preparations are now being made for naming committees from among prominent loan workers of Detroit and Flint to attend the launching of the ships to be named after these cities, and to help the vessels down the ways with the customary honors. For Flint Mrs. Marcia Dort, wife of J. Dallas Dort, general Liberty Loan chairman, has been named as sponsor and will break the traditional bottle of champagne over the prow of the Emergency Fleet liner and christen her, "City of Flint." For Detroit William Livingstone, general chairman of the Detroit and Wayne county Liberty Loan committee, has been chosen as sponsor.

As under the laws governing the registration of vessels it is not allowable to have two ships with the same name, there may be a conflict over "City of Detroit." In that case the name "Wayne" has been selected as second choice. No date has yet been set for the launchings.

A UNIFORM TYPE FOR THE BLIND.

American libraries for the blind are rejoicing over the fact that they will no longer be obliged to have books in five different kinds of raised letters in order to accommodate readers taught in different parts of the country and at different periods. After many years of discussion a uniform type, to be known as "revised Braille," has been agreed upon, and hereafter all books embossed in this country are to be in the new type. "The Deserter," by Richard Harding Davis, was the first book to be published in revised Braille.

THE SOUTH AMERICAN SPIRIT.

The British Red Cross Chapter in the Argentine raised $23,000 for the British Red Cross "Our Day" fund through a raffle of household goods. Goods to the value of $10,000 were donated, enabling the committee to offer 200 prizes.

Coca Cola.—Analyses made by federal chemists showed it to contain from 0.92 to 1.30 grains of caffein to the fluidounce. It would seem that in the interest of the public health the indiscriminate sale to children and adults of an alkaloid like caffein in the enticing form of a "soft drink" is to be depreciated. (*Jour. A.M.A.*, Jan. 25, 1919, p. 299).

Arsaminol.—A brand of arsphenamine which complies with the New and Nonofficial Remedies standards. Arsaminol is supplied in sealed tubes containing, respectively, 0.1 Gm., 0.2 Gm., 0.3 Gm., 0.4 Gm., 0.5 Gm., and 0.6 Gm. Takamine Laboratory Inc., New York. (*Jour. A.M.A.*, Jan. 18, 1919, p. 193).

Chlorinated Eucalyptol, Squibb.—Eucalyptol chlorinated at room temperature. It is used as a solvent for dichloramine-T in the treatment of infected wounds, etc. The solution should preferably be made as required. E. R. Squibb and Sons, New York.

Egg Allergens-Squibb.—A powder representing all the soluble proteins contained in hens' eggs. It is a fine, white powder, odorless, somewhat soluble in water and physiological sodium chloride solution. Egg allergens-Squibb has the actions and uses of Biologically Reactive Food Proteins. E. R. Squibb and Sons, New York.

"THE NATION'S CREDITORS."

But as they stood there chattering,
Out from the station came
A string of cautious motor cars
Packed full of lean brown men—
The halt, the maimed, the blind, the lame,
The wreckage of the wars—
Their faces pinched and full of pain,
Their eyes still dazed with stress and strain—
The Nation's creditors.

John Oxenham.

= 5 Complete 18, cp. 2

Hospital Unit

MAY 15 1919